

SONY

KVX2521U


MODEL

SERVICE MANUAL

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SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK
 ON THE SCHEMATIC DIAGRAMS, EXPLODED
 VIEWS AND IN THE PARTS LIST ARE CRITICAL TO
 SAFE OPERATION. REPLACE THESE COMPONENTS
 WITH SONY PARTS WHOSE PART NUMBERS APPEAR
 AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS
 PUBLISHED BY SONY.

SECTION 1

GENERAL

Note) The layout, etc., will be slightly different from the operating instructions packed with the units.

1-1. FIRST OF ALL

- 1 Connect the aerial to the Γ socket on the rear of the set.
This socket receives the standard 75-ohm aerial plug.
- 2 Plug in the set.
- 3 Tune in the available channels.

Use the buttons inside the panel. To open the panel, push the center.

To tune in all channels automatically :

- 1 Press \rightarrow (preset).
- 2 Press PROGR to select the program position from which tuning is to start.
- 3 Press \rightarrow (auto programing).

The channels will be tuned in and memorized in consecutive positions, beginning from the program position selected in step 2.

When tuning has been completed, the set returns to the position where tuning began.

To tune in a channel in any desired program position.

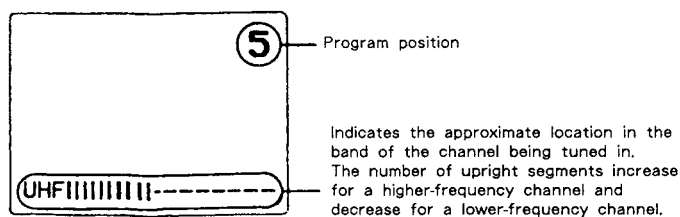
- (e. g. the position which the same number as the channel) :
- 1 Press \rightarrow (preset).
 - 2 Press PROGR to select the desired program position.
 - 3 Press C (clear).
 - 4 Press \rightarrow (search) repeatedly until the desired channel appears.
 - 5 Repeat steps 2 to 4 for all channels, if required.
 - 6 Press \rightarrow (preset) again.

If the set is to be used in an area with poor reception, preset the program numbers between 1 and 19 for TV program use.

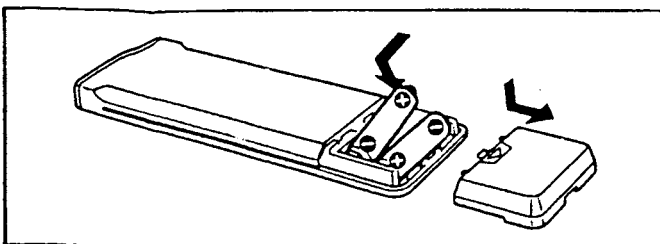
To have the unused program positions skipped when PROGR+ or PROGR- is pressed

- 1 Press \rightarrow (preset).
- 2 Press PROGR to select the unused position.
- 3 Press C (clear).
- 4 Repeat steps 2 and 3 for all unused position.
- 5 Press \rightarrow (preset) again.

On-screen display while tuning

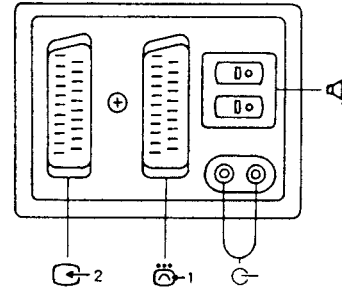


- 4 Insert two R6 batteries checking the correct polarity.



1-2. CONNECTING OTHER EQUIPMENT

Connectors on rear set



L/G/S	Left external speaker terminal (2-pin DIN)	Connect to external speakers. The TV speakers will be disconnected. speakers 8-16 Ω
R/D/D	Right external speaker terminal (2-pin DIN)	
R/D/D	Right audio output jack (phono jack)	Connect to audio equipment. When only using the phono-jacks, two loudspeaker plugs, (DIN 41529) should be inserted into the external speaker terminals so that the TV speaker output is switched off.
L/G/S	Left audio output jack (phono jack)	
G-1	21-pin connector (CENELEC standard)	Connect to a VTR micro computer, etc. The picture of the TV channel being received is always output. The picture of G-2 can be watched while recording a TV program with the VTR connected to G-1.
G-2	21-pin connector (without RGB input)	Connect to second VTR. The picture displayed on the screen is always output. The picture of G-1 can be recorded with the VTR connected to G-2 while monitoring the picture.

VTR operation using the supplied Commander

Remote operation of the VTR is limited to the features and functions of the VTR. For further details, refer to the VTR manual.

When watching a video with the VTR connected to the Γ connector, set the channel for the video to the program number 0 or any empty channel between 20 and 29.

Note

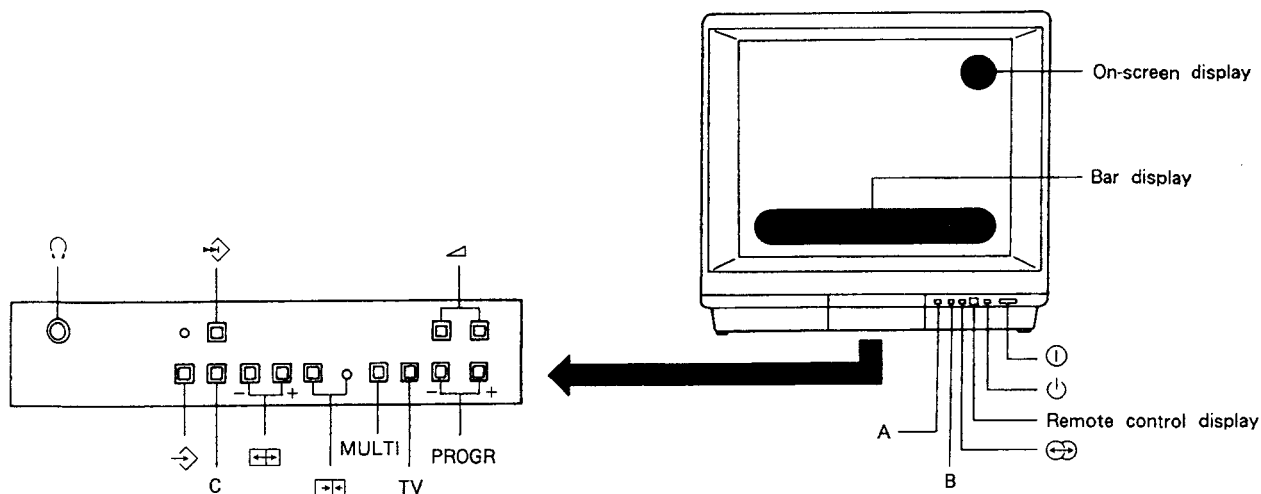
Move the VTR away from the TV, if the picture or sound is distorted.

21 pin connector (1, 2)

Pin No.	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
2	○	○	Audio input B (right)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
3	○	○	Audio output A (left)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
7	○	●	Blue input	0.7 V \pm 2 dB, 75 ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10 k ohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green/Green with sync input	Green signal : 0.7 V \pm 2 dB, 75 ohms, positive Green with sync signal : 1 V \pm 2 dB, 75 ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	●	Red input	(Same as Pin 7)
16	○	●	Blanking input (Ys signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75 ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1 V \pm 2 dB, 75 ohms, positive Sync : 0.3 V (–3, \pm 10 dB)
20	○	○	Video input	1 V \pm 2 dB, 75 ohms, positive Sync : 0.3 V (–3, \pm 10 dB)
21	○	○	Common ground (plug, shield)	

* at 20 Hz–20 kHz ○ connected ● unconnected (open)

1-3. FUNCTION OF CONTROLS



On the set

On-screen display

Indicates program numbers and input modes.

Bar display

Indicates the level of volume, color, brightness, contrast, bass, treble and balance.

Note on function.

When the volume is at the minimum setting the balance function will not operate.

① Power switch

To cut off the mains power completely, press this switch. Depress the power switch fully to ensure correct operation of the set.

Note

To ensure correct operation, push the switch in fully.

⏻ standby indicator

Lights up brightly when the set is in the standby mode.

Note

If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off.

space sound indicator

Lights up when on the Remote Commander is pressed.

A/B indicators

One of them lights during bilingual broadcast. (Choose A or B with the Remote Commander.)

Both light during stereo broadcast. In AV mode, A lights for left channel, B for right channel, or A and B for both channels.

Remote control detector

Point the Remote Commander towards this detector.

Inside the panel

headphones jack (stereo minijack)

SEARCH buttons

Press to fine tune a weak channel manually, if required. When is pressed, the indicator (AFT) goes off and the AFT circuit does not function on the selected channel. To restore the AFT circuit on this channel, press (AFT) so that the indicator lights up.

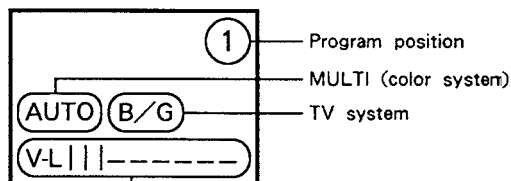
AFT button and indicator

Normally, press so that the indicator lights up. The AFT circuit automatically fine tunes the channel for the best possible picture.

volume buttons

PROGR+, PROGR- program scan buttons

On-screen display during presetting



Indicates the approximate location in the band of the channel being tuned in.

"V-L": low VHF band, "V-H": high VHF band, "UHF": UHF band.

The number of upright segments increases for a higher-frequency channel.

Each time TV button is pressed, the following indications appear in this order.

B/G: West European TV standard

I: British TV standard

M: American TV standard

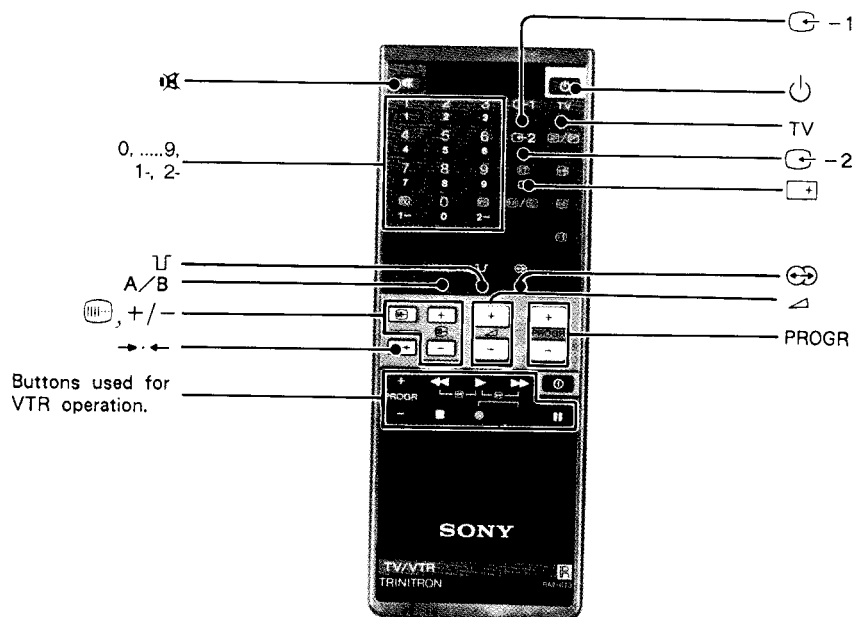
D/K: East European TV standard

L: French TV standard

Each time MULTI button (COLOR SYSTEM) is pressed, the following indications appear in this order.

AUTO; NTSC_{3.58};

Normally set to the AUTO position. The available color system is selected automatically.



RM-673

On the Remote Commander

To operate the Commander, point it toward the remote control detector.

mute button

0, ..., 9, 1-, 2- buttons

To tune into:
program 15, press 1- and 5.
program 25, press 2- and 5.

A/B button

Press to select the language in a bilingual broadcast, or to select the channel in AV mode.

+ / − analogue select buttons

Press .

will appear on the screen. Adjust by pressing + or −. Press again and adjust (color), then (brightness), (bass), (treble) and (balance).

→ • ← reset button

Press to reset color, contrast and brightness to factory-set levels.

standby button

Press to change to the standby mode. Use this button to turn off the set for short periods of time.

To turn on the set, press TV or the program number; there will be a slight delay before the picture is restored.

If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off.

TV button

Press to change to the TV mode from standby, input or teletext modes.

1 input button

Press to view the input picture coming in through the connector.

"G-1" lights up on the screen.

Press TV or the program number to return to the TV mode.

2 input button

Press to view the input picture coming in through the connector.

"G-2" lights up on the screen.

Press TV or the program number to return to the TV mode.

on-screen display button

Press to make the display appear on the screen.

Press again to make it disappear.

loudness button

Press to emphasize high and low notes.

space sound button

Press to obtain special acoustic effects.

volume buttons

PROGR program scan buttons

Note

Buttons not referred to on this page or next page do not operate.

1-4. VIEWING TELETEXT

To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.

Operation

- 1 Select the TV channel for the desired teletext service.
- 2 Press (TEXT/MIX) to display the teletext service.
Once has been pressed, the TV channel cannot be changed.
- 3 Key in the three digits for the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then re-enter the correct page number. The requested teletext page is displayed.

To return to the TV mode, press TV on the remote commander.

The teletext service can be displayed directly from the standby mode, by pressing .

To receive the teletext service of a different TV channel

- 1 Press TV to return to the TV mode.
- 2 Select the desired TV channel.
- 3 Press .

Note

To receive the teletext service accurately, keep inside the panel switched on during teletext operation.

To display the index page

Press (INDEX).

If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page

Press (PAGE+) or (PAGE-).

To superimpose the teletext display on the TV picture

Press twice from TV mode.

Press again to return to the TEXT display.

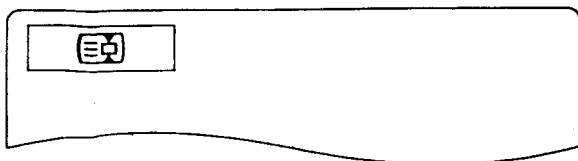
To suppress the teletext display so that the TV picture is displayed

Press (TEXT CL).

This button can be operated from both the TEXT and MIX displays.

To prevent a teletext page (subpage) from being updated / changed

Press (HOLD). The HOLD symbol appears at the top of the screen.



To resume normal teletext reception, press .

To enlarge the teletext display

Press .

Press once to enlarge the upper half of the display; press again to enlarge the lower half of the display; press again to return to the normal display.

To reveal concealed information such as the answers to a quiz

Press (REVEAL).

Press again to conceal the answers.

To adjust the contrast of the teletext display.

When in teletext mode, adjust by using the + or - keys adjacent to the key.

To watch the TV program while waiting for a requested page to be displayed

- 1 Request the new page.
- 2 Press to watch the TV program.
The requested page number appears at the top left of the screen.
When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.



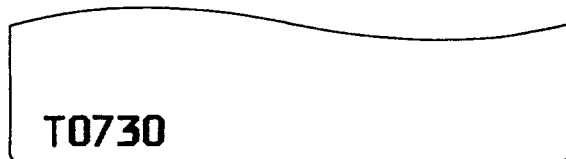
To view this page, press .

To have a requested page displayed at a pre-determined time

- 1 Request a time coded page (e. g. alarm page).
- 2 Press (TP ON).
"T****" will appear at the bottom of the screen.



- 3 Enter your request time with the number buttons, using four digits. For example, 07 : 30.



To watch the TV program until the requested time, press . At the requested time, the page number will be displayed at the bottom of the screen.

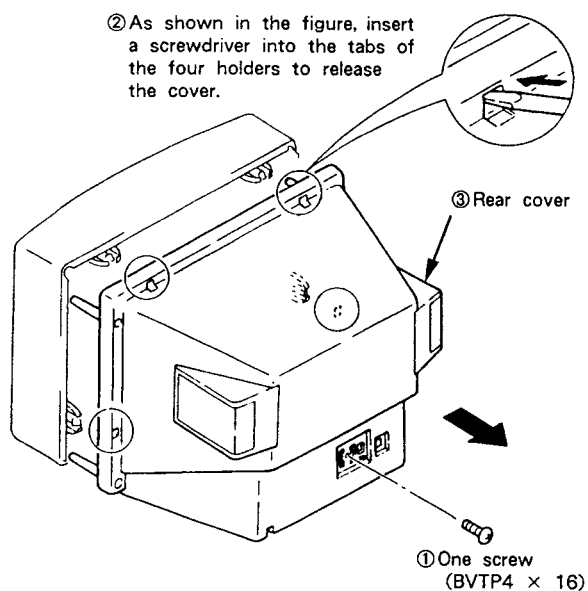
To view this page, press .

To cancel the request, first ensure that the teletext page is displayed, then press (TP OFF).

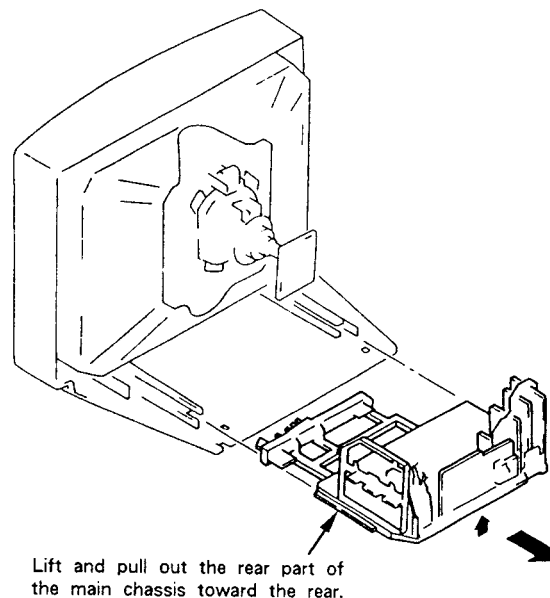
SECTION 2

DISASSEMBLY

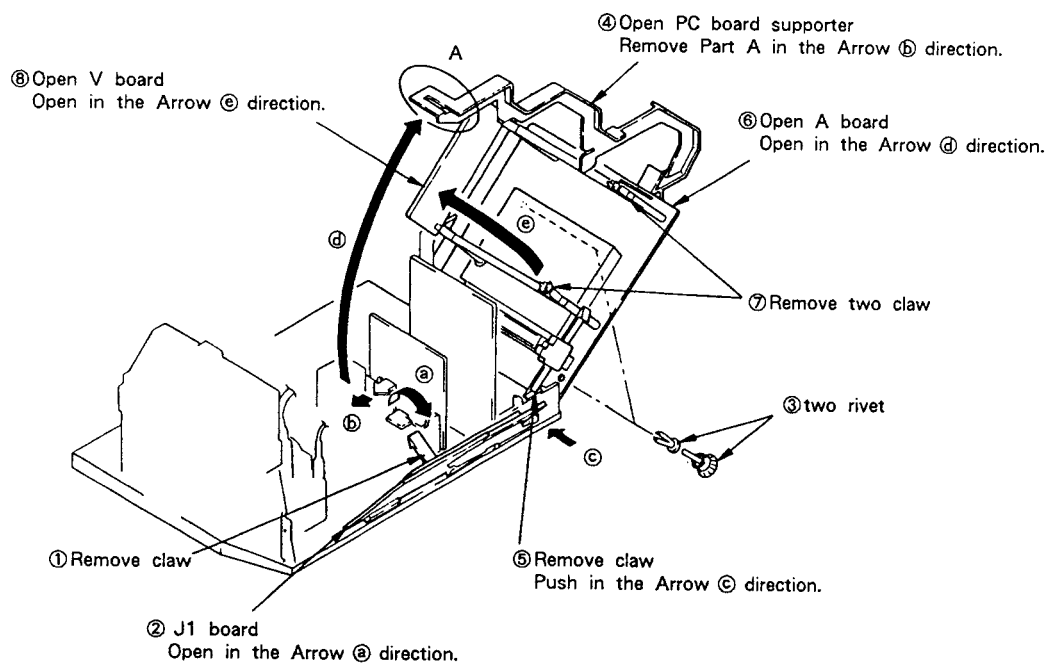
2-1. REAR COVER REMOVAL



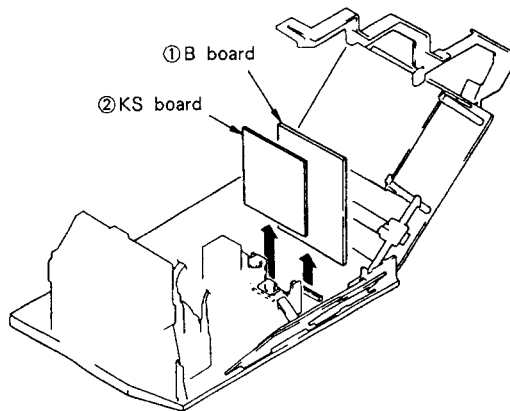
2-2. CHASSIS ASSY REMOVAL



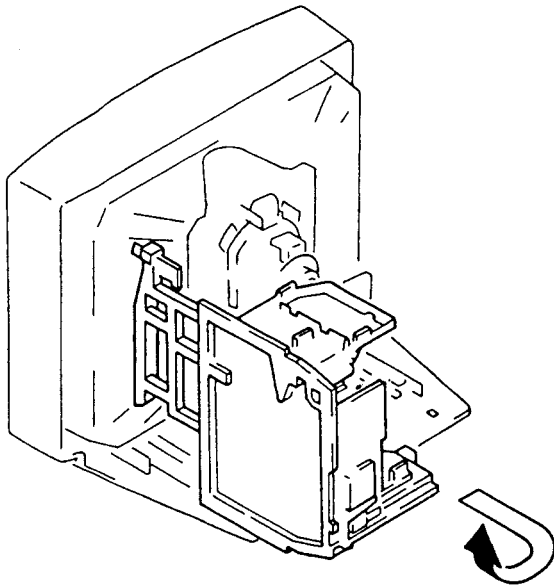
2-3. J1, A AND V BOARDS REMOVAL



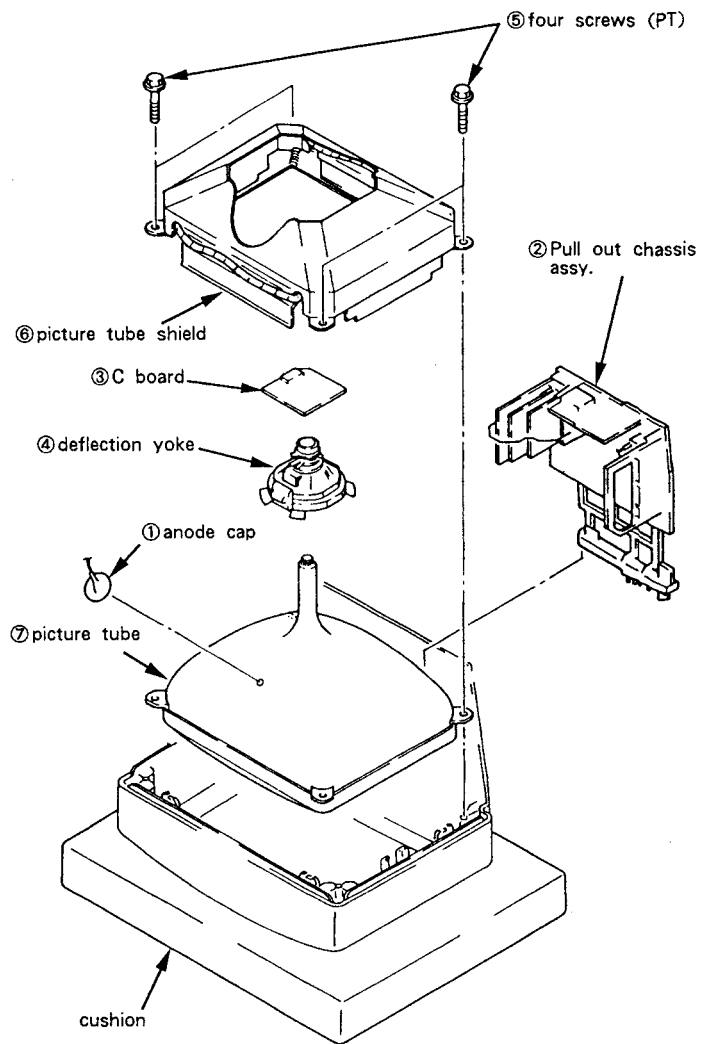
2-4. KS AND B BOARDS REMOVAL



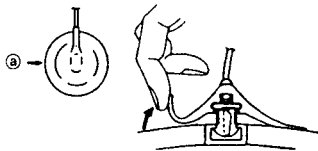
2-5. SERVICE POSITION



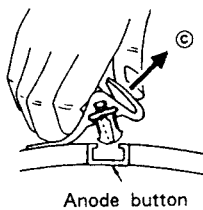
2-6. PICTURE TUBE REMOVAL



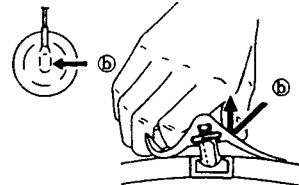
• Removing Procedures



- ① Turn up one side of the rubber cap in the direction indicated by the arrow a.



- ② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow b.



- ③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow c.

SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

- CONTRAST control 80% (or Normal by Commander)
- ☼ BRIGHTNESS control 50%

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Precaution

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

1. Input a raster signal with the pattern generator.
CONTRAST normal
BRIGHTNESS normal
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 3-1 to 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig. 3-1)
5. Switch over the raster signal to blue and green and confirm the condition.
6. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
7. When landing at the corners is not right, adjust by using the magnet. (Fig. 3-4)

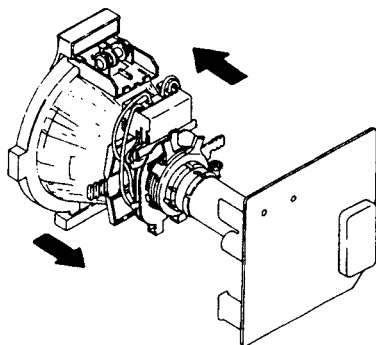


Fig. 3-1

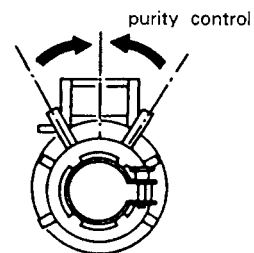


Fig. 3-2

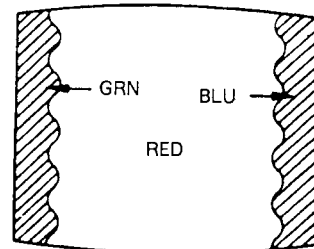


Fig. 3-3

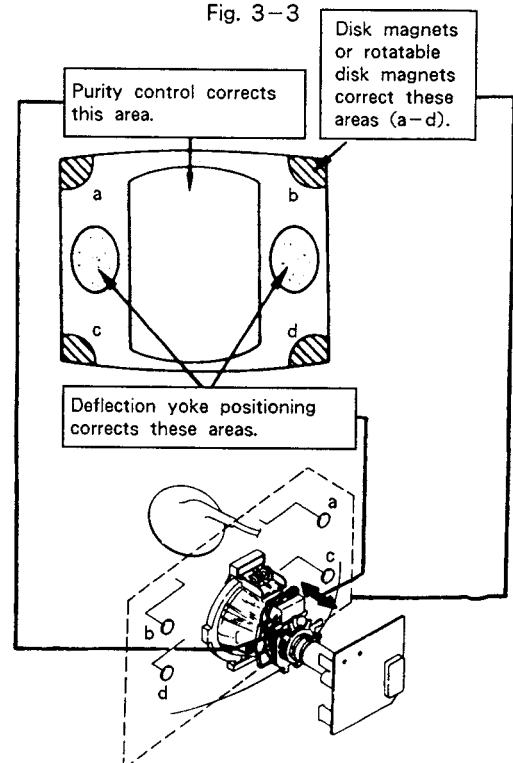


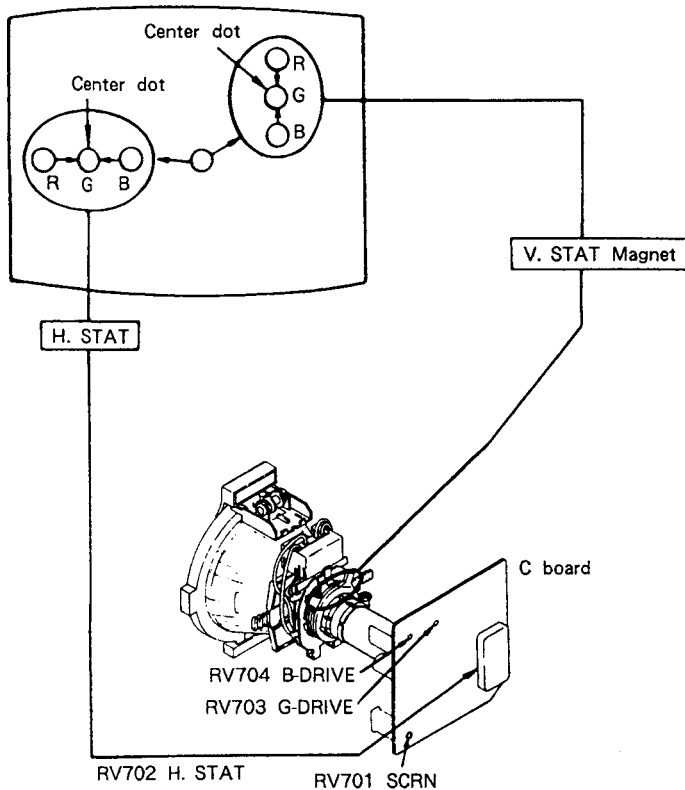
Fig. 3-4

3-2. CONVERGENCE

Preparation :

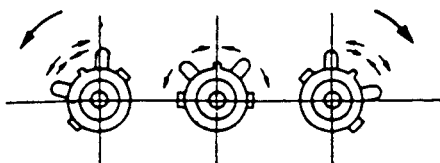
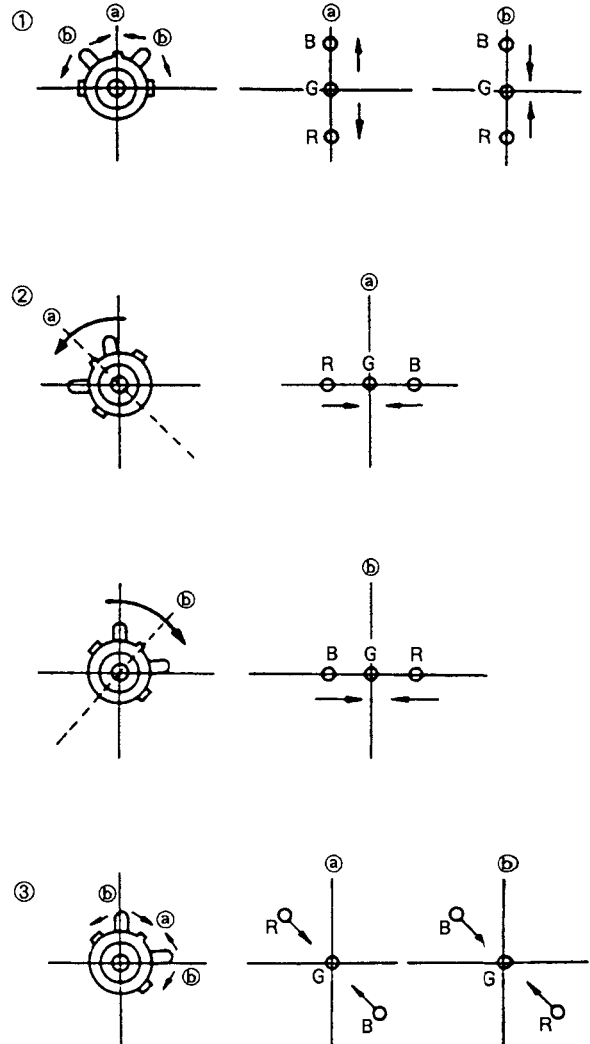
- Before starting, perform FOCUS, H. SIZE and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence

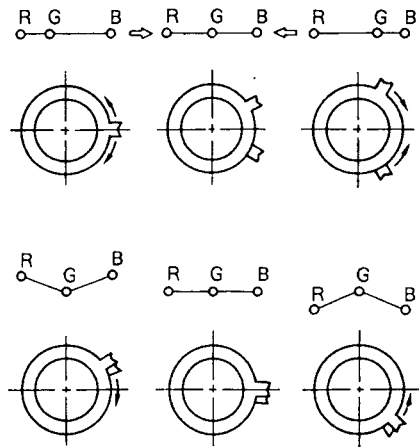


1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
 2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)
 3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.

4. When the V. STAT magnet is moved in the direction of arrow ① and ②, red, green and blue dots move as shown below.

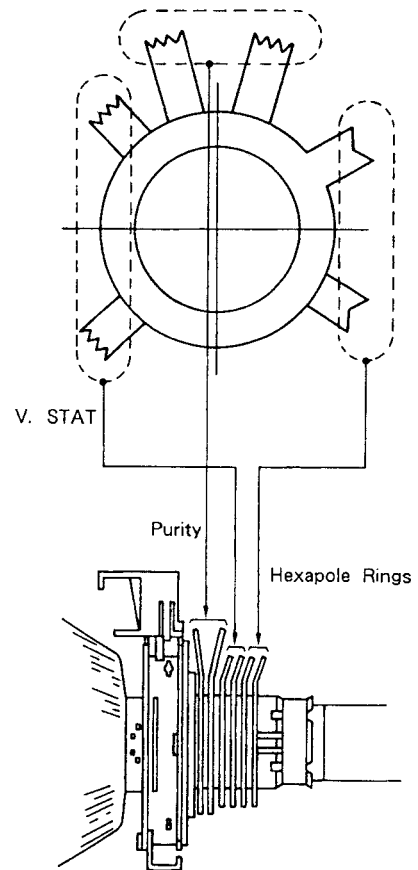


• Operation of Hexapole Ringed Magnet



The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.

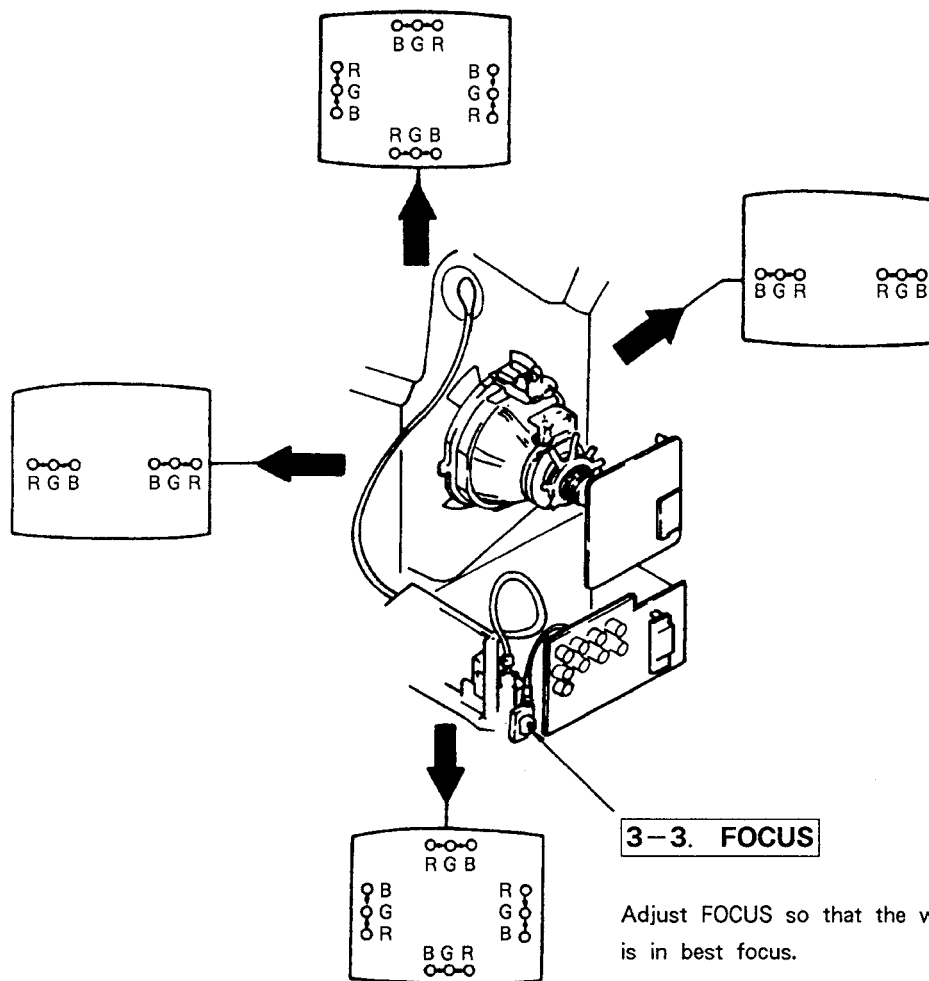
Use the H. STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).



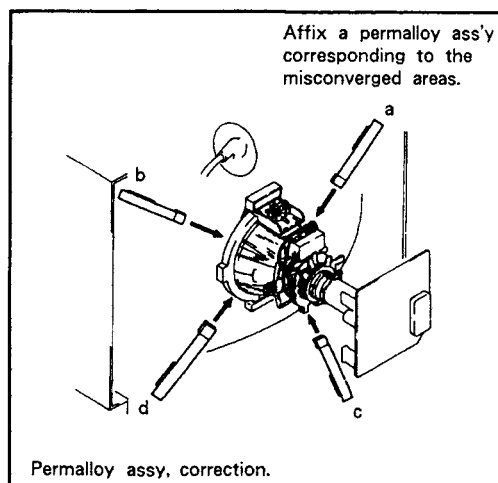
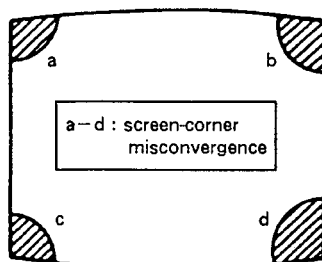
(2) Dynamic Convergence Adjustment

Preparation :

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
1. Slightly loosen deflection yoke screw.
 2. Remove deflection yoke spacers.
 3. Move the deflection yoke for best convergence as shown below.
 4. Tighten the deflection yoke screw.
 5. Install the deflection yoke spacers.



(3) Screen-corner Convergence



3-4. WHITE BALANCE

[Screen (G2) Setting]

1. Input dot signals from the pattern generator.
2. Set the picture BRIGHTNESS control to the minimum level.
3. Apply 170 V dc to the cathodes of R, G, and B from an external power source.
4. While watching the picture, adjust the G2 volume (RV701) immediately before the fly-back line disappears.

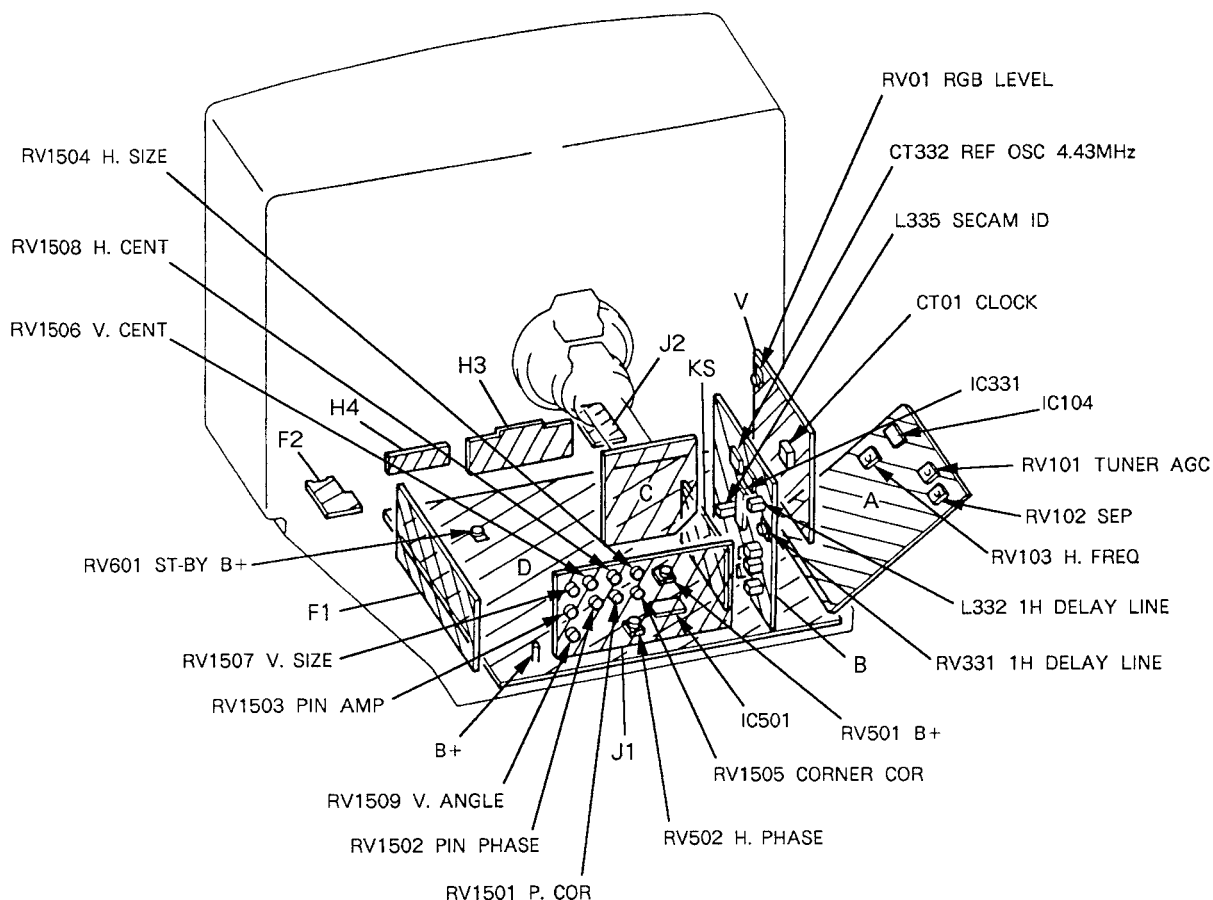
[White Balance Adjustment]

1. Input all-white signals from the pattern generator.
2. Adjust the BRIGHTNESS and COLOR controls to the standard level.
3. Adjust the white balance using RV704 (B DRIVE) and RV703 (G DRIVE).

In the following adjustments, the CONTRAST COLOR and BRIGHTNESS controls are set to normal unless otherwise specified.

SECTION 4

CIRCUIT ADJUSTMENTS



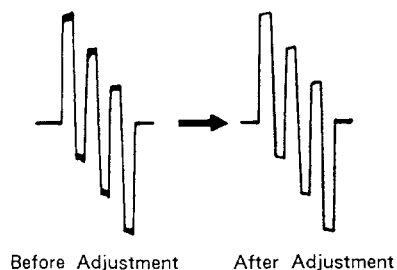
4-1. B BOARD ADJUSTMENTS

REF OSC Adjustment (CT332)

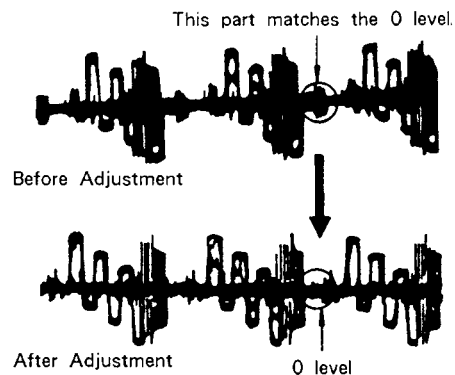
1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑩ of IC331 and ground.
3. Adjust CT332 to obtain color synchronization.
4. Remove the jumper wire from IC331.

1H DELAY LINE Adjustment (L332, RV331)

1. Input a PAL COLOR BAR pattern.
2. Connect the oscilloscope to pin ③ (B-Y) of IC331 and observe the waveform of the H block on the oscilloscope.
3. Adjust L332 to minimize the double waveform outline.



4. Input a PAL TEST COLOR BAR pattern.
5. Rotate the RV331 VR and adjust till the ANTI-PAL part of the waveform matches the 0 level.



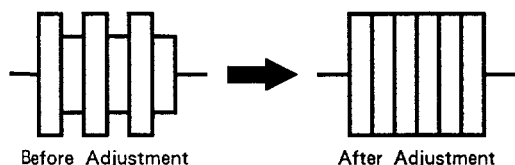
6. L332 and RV331 affect each other. So repeat till the conditions of both are met.

SECAM ID Adjustment (L335)

1. Input a SECAM COLOR BAR pattern.
2. Connect a Digital Multimeter to pin ② of IC331.
3. Adjust L335 so that the indicator goes up to the maximum.

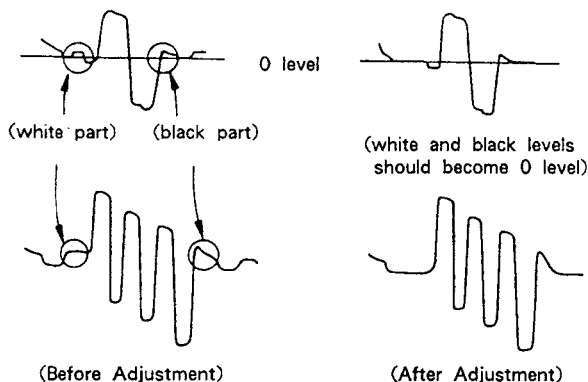
BELL FILTER Adjustment (T331)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to the Q335 emitter.
3. Adjust T331 so that the waveform becomes flat.



SECAM DISCRI Adjustment (L333, L334)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to pin ① of IC331.
3. Adjust L333 so that white and black parts of the waveform of pin ① becomes 0 level.
4. Connect an oscilloscope to pin ③ of IC331.
5. Adjust L334 so that white and black parts of the waveform of pin ③ becomes 0 level.



4-2. D BOARD ADJUSTMENTS

B+ Adjustment (RV501)

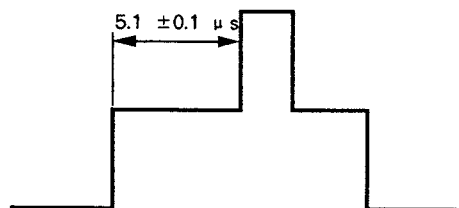
1. Connect a Digital Multimeter to TP91.
2. Adjust RV501 so that the voltage becomes 135 ± 0.2 V.

ST-BY B+ Adjustment (RV601)

1. Set up \cup standby (Remote Commander) mode.
2. Connect the Digital Multimeter to TP91.
3. Adjust RV601 so that the voltage becomes 135 ± 3 V.
4. Release the \cup standby (Remote Commander) mode.

H. PHASE Adjustment (RV502)

1. Input a PAL TEST COLOR BAR pattern.
2. Set the CONTRAST and BRIGHTNESS controls to the standard positions.
3. Set RV1508 (H. CENT) to the mechanical center position.
4. Connect an oscilloscope to pin ⑪ (SPC OUT) of IC501.
5. Rotate RV502 and adjust Block T to 5.1 ± 0.1 μ s.



4-3. A BOARD ADJUSTMENTS

TUNER AGC Adjustment (RV101)

1. Tune in an off-air signal.
2. Adjust RV101 so that snow-noise and cross-modulation just disappear from the picture.

STEREO SEPARATION Adjustment (RV102)

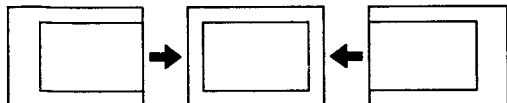
1. Input stereo signals. (L-CH 1 kHz, R-CH 400 Hz)
2. Check the stereo indicator.
3. Connect an oscilloscope to pin ① (L) of CNA11 through band pass filter of 1 kHz.
4. Adjust RV102 so that 1 kHz voltage goes down to the minimum.

H. FREQ Adjustment (RV103)

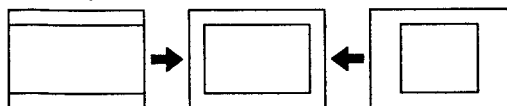
1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑫ of IC104 and ground.
3. Connect a frequency counter to pin ⑥ of IC104 through a probe of 10:1.
4. Adjust RV103 so that H. frequency becomes $15,625 \pm 50$ Hz.

4-4. J1 BOARD ADJUSTMENTS

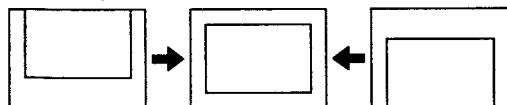
RV1508
H. CENT (HORIZONTAL CENTER)



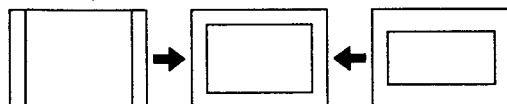
RV1504
H. SIZE (HORIZONTAL SIZE)



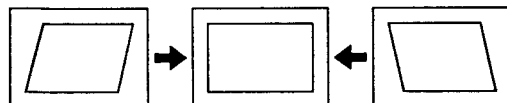
RV1506
V. CENT (VERTICAL CENTER)



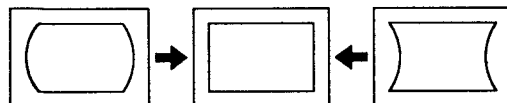
RV1507
V. SIZE (VERTICAL SIZE)



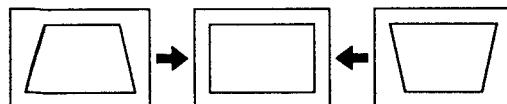
RV1509
V. ANGLE (VERTICAL ANGLE)



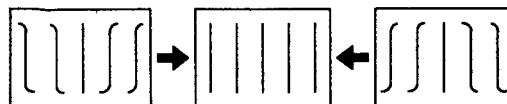
RV1503
PIN AMP (PINCUSHION AMPLIFIER)



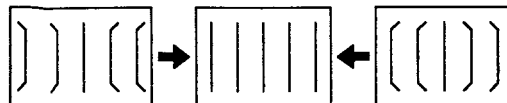
RV1502
PIN PHASE (PINCUSHION PHASE)



RV1501
PIN COR (PINCUSHION CORRECT)



RV1505
CORNER COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENTS

Clock Adjustment (CT01)

1. Disconnect the V-1 connector.
2. Set up the TELE TEXT mode.
3. Adjust CT01 to stop pictures from scrolling.

RGB Level Adjustment (RV01)

1. Set PICTURE to maximum.
2. Adjust RV01 till the RGB output becomes 0.75 V.

4-6. SUB ADJUSTMENTS

SUB BRIGHTNESS Adjustment

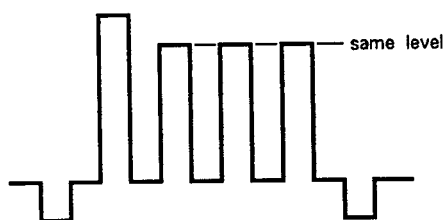
1. Receive and display a TEST COLOR BAR pattern.
2. Push →•← on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Reduce the CONTRAST to the minimum level.
6. Adjust the BRIGHTNESS control until the 0 IRE of the gray scale becomes completely cut off, and the 20 IRE becomes barely luminous.
7. Push the AFT button. (SUB mode is cleared)

Where no TEST COLOR BAR pattern is available.

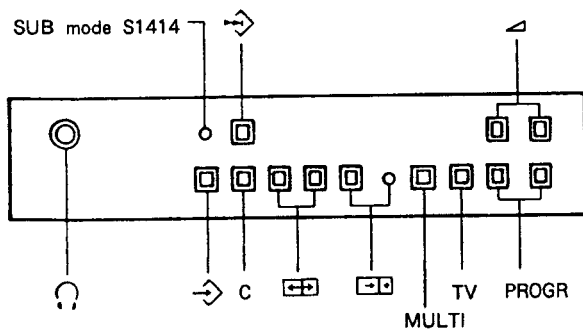
1. Display a COLOR BAR pattern.
 2. Push →•← on the remote commander to invoke the normal state.
Set the COLOR to normal mode.
- Steps 3 - 5 are the same as above.
6. 20 IRE is close to blue, so adjust the BRIGHTNESS control till blue is faintly luminous.
 7. Same as Step 7 above.
 8. Push →•← on the remote commander to invoke the normal state.
- * When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S is displayed only for 30 seconds, perform the adjustment within 30 seconds, or repeat from Step 4.

SUB COLOR Adjustment

1. Display a COLOR BAR pattern.
2. Push →•← on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Adjust the COLOR control until the B out (pin ② of CNC72 connector on C board) waveform becomes as shown below.
6. Push the AFT button. (SUB mode is cleared.)

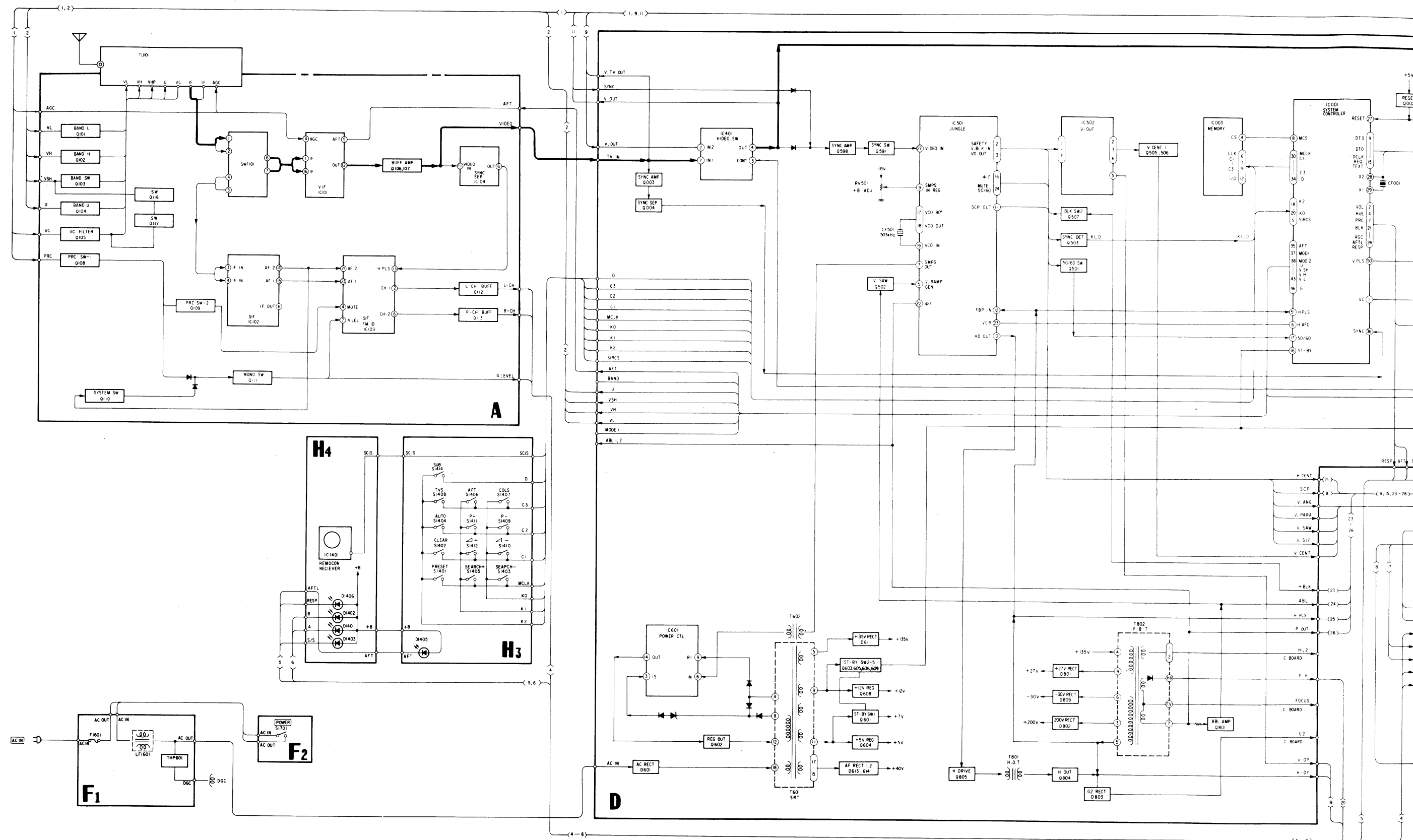


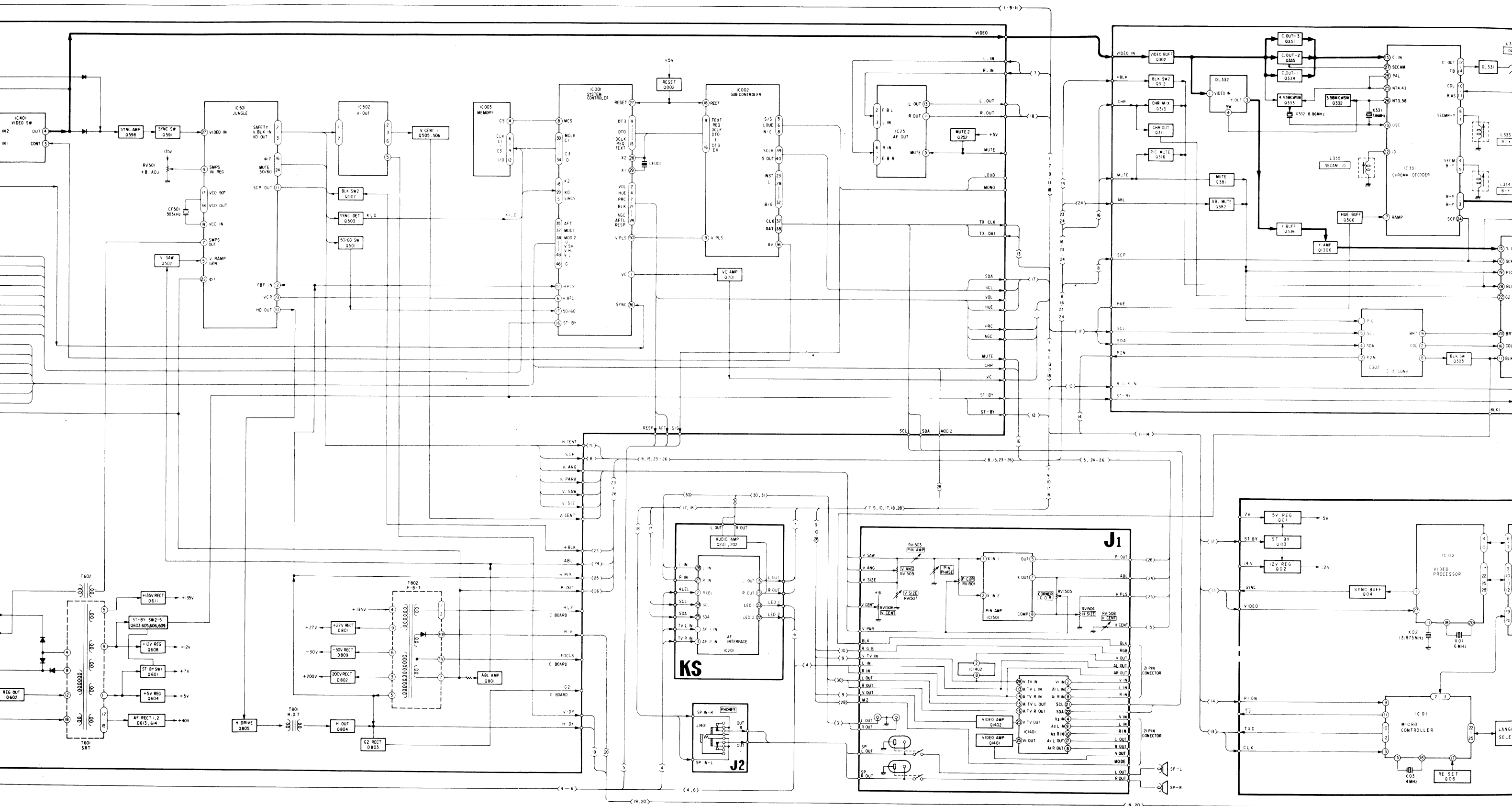
* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S (SUB mode) is displayed only for 30 seconds, perform the adjustment with 30 seconds, or repeat from Step 4.

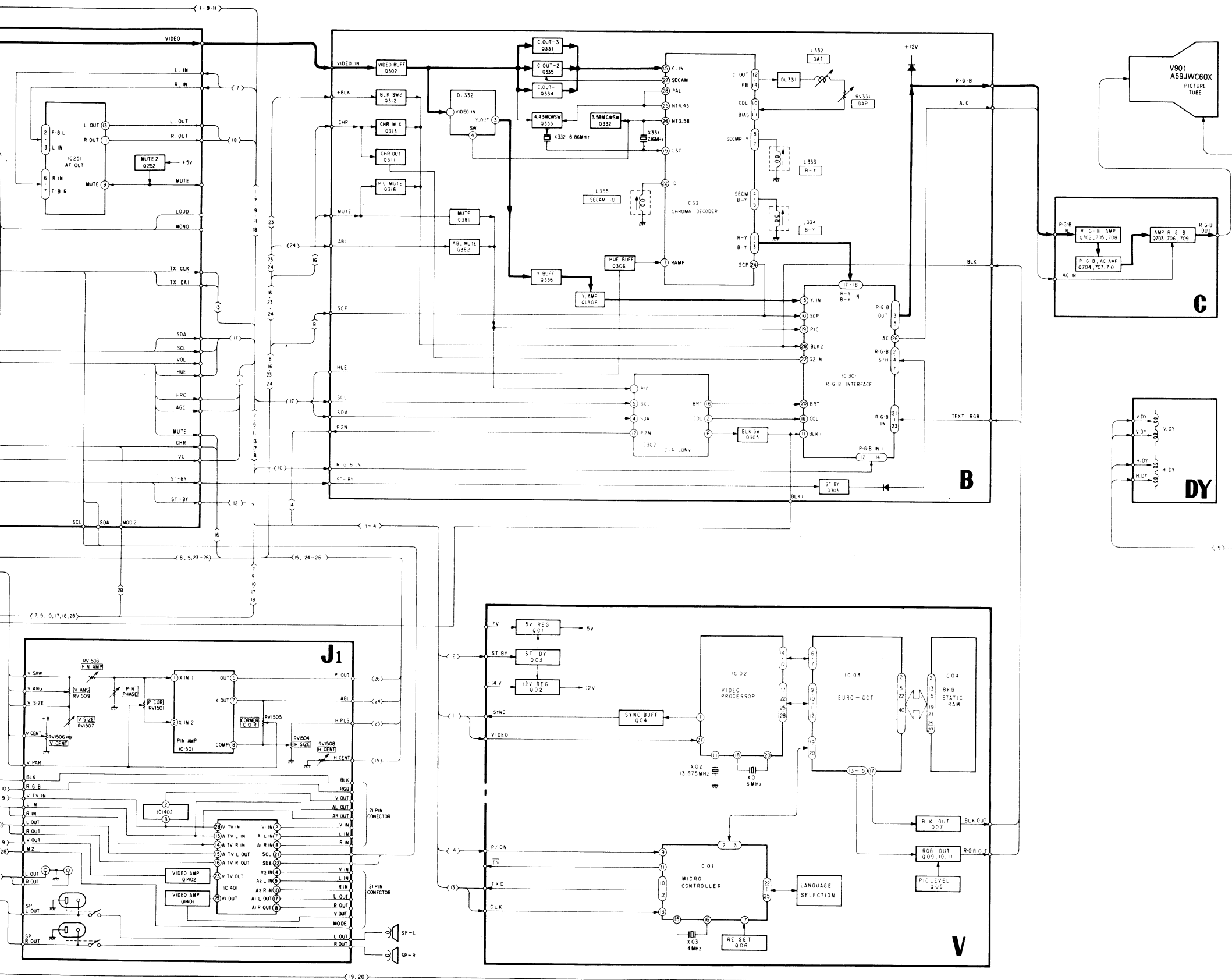


SECTION 5 DIAGRAMS

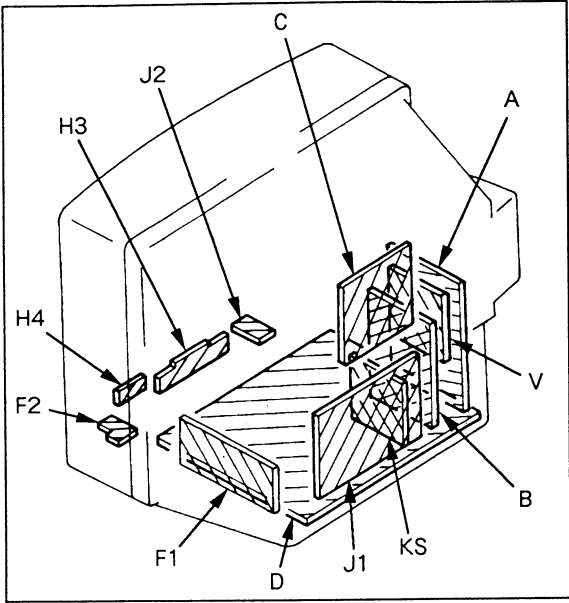
5-1. BLOCK DIAGRAM







5-2. CIRCUIT BOARDS LOCATION



Note :

- All capacitors are in μF unless otherwise noted.
pF : μF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power 1/4W

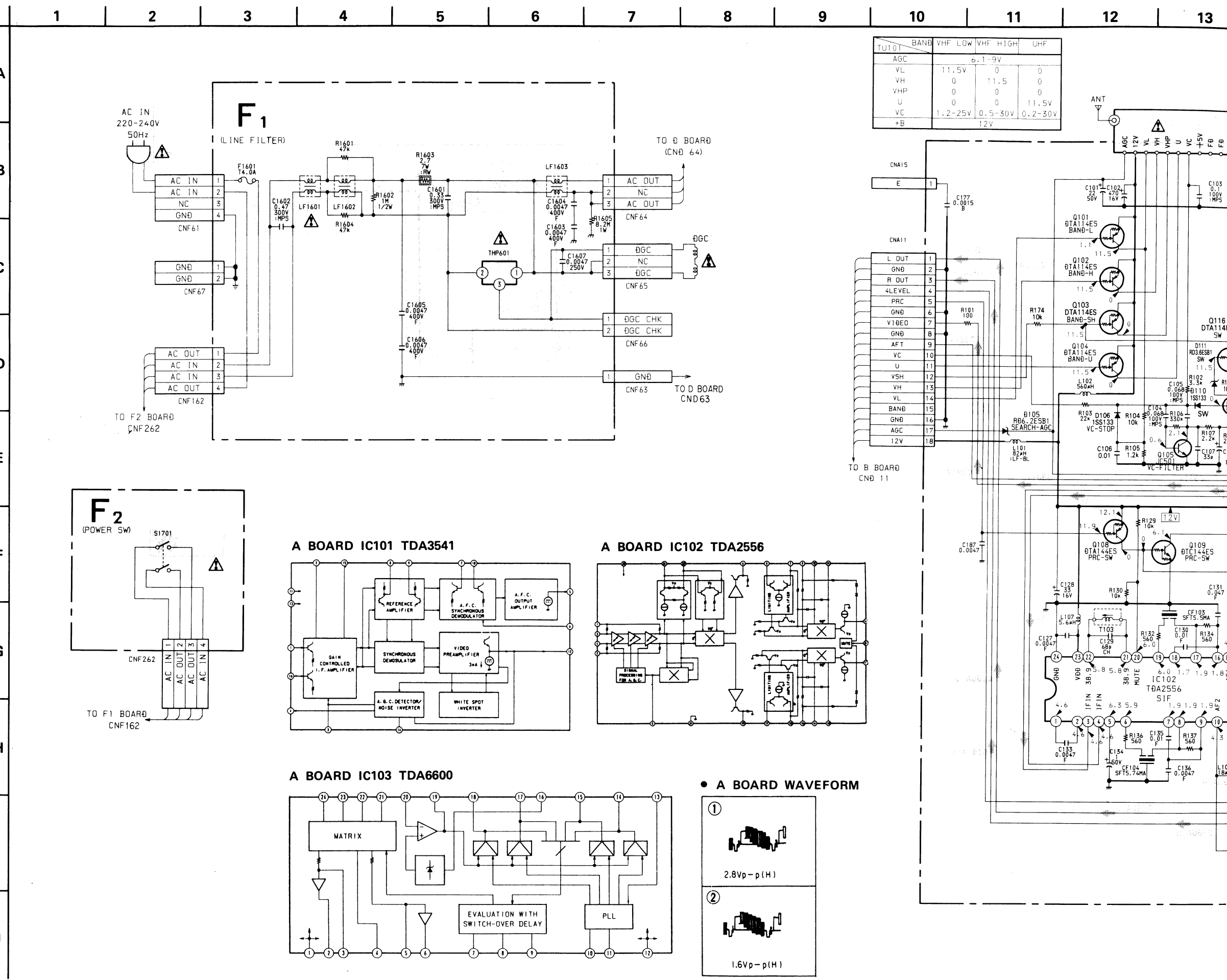
- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10 M Ω digital multimeter.
- Readings are taken with a PAL color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- : B+ bus.
- : B- bus.
- : signal path.

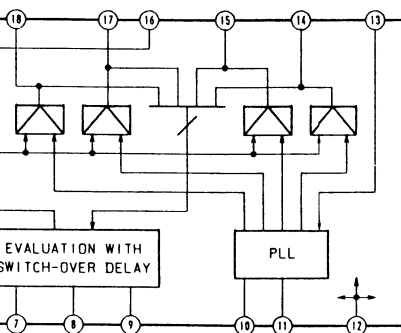
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

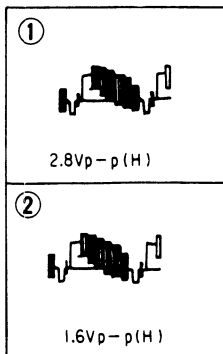
5-3. SCHEMATIC DIAGRAMS



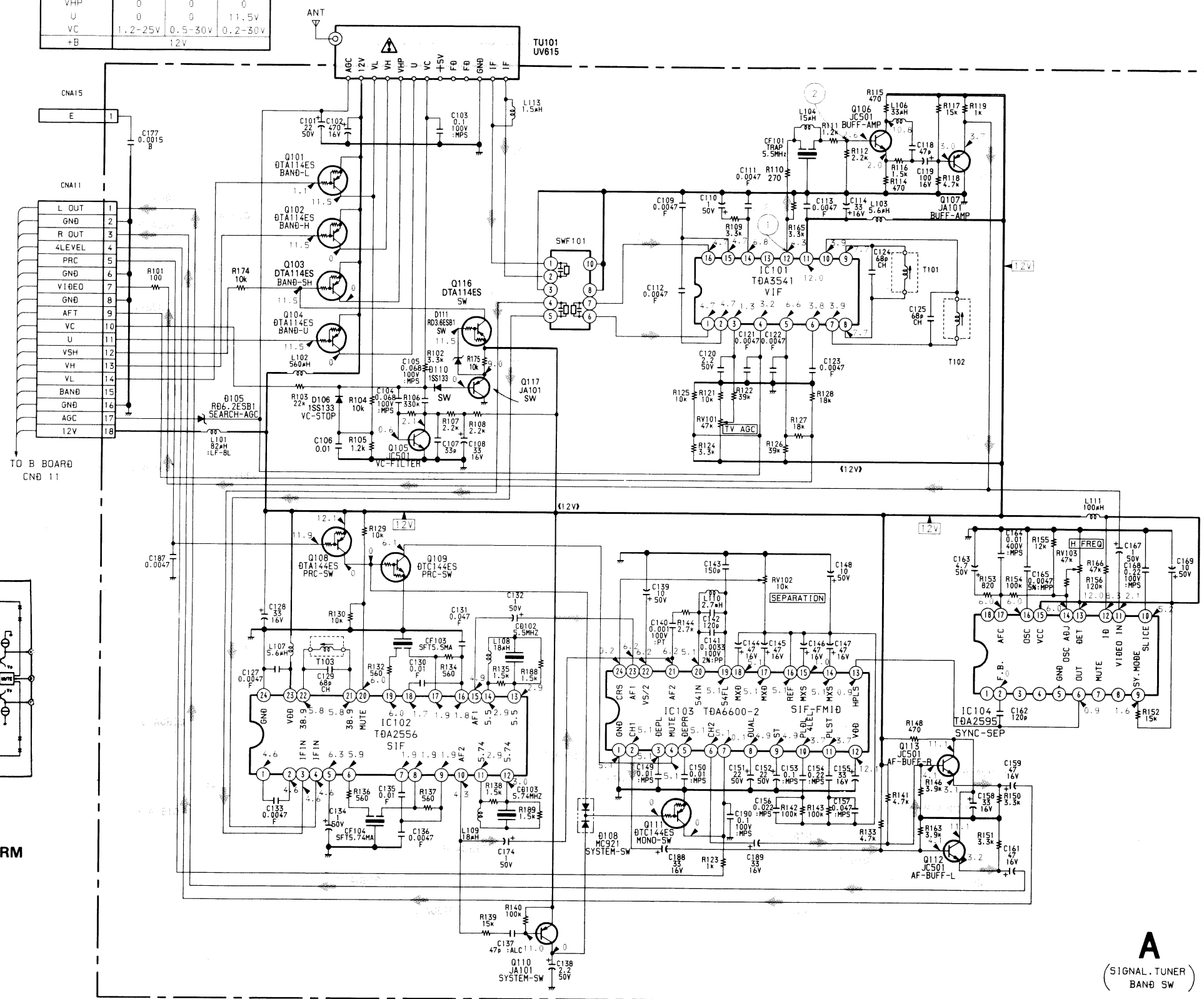


A BOARD IC102 TDA2556

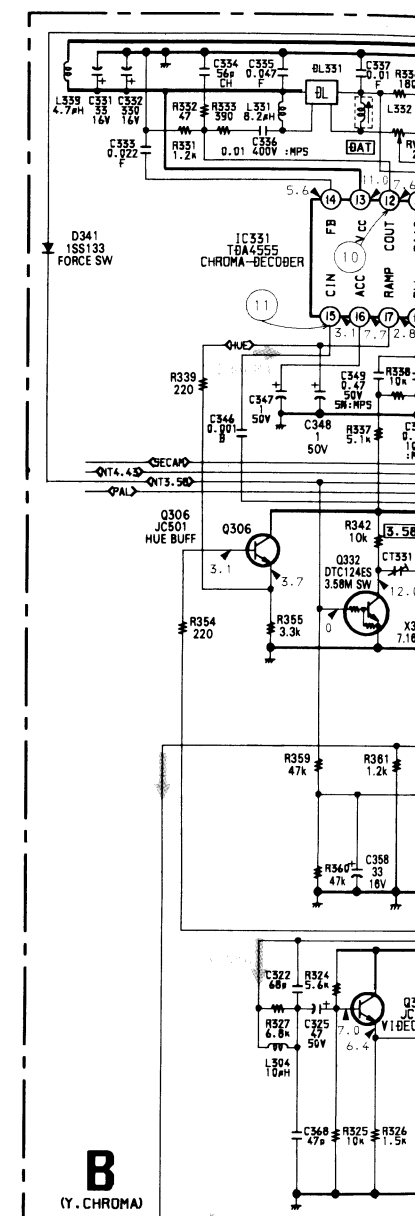
- **A BOARD WAVEFORM**



TU101	BAND	VHF LOW	VHF HIGH	UHF
AGC		6.1-9V		
VL		11.5V	0	0
VH		0	11.5	0
VHP		0	0	0
U		0	0	11.5V
VC		1.2-25V	0.5-30V	0.2-30V
+B		12V		

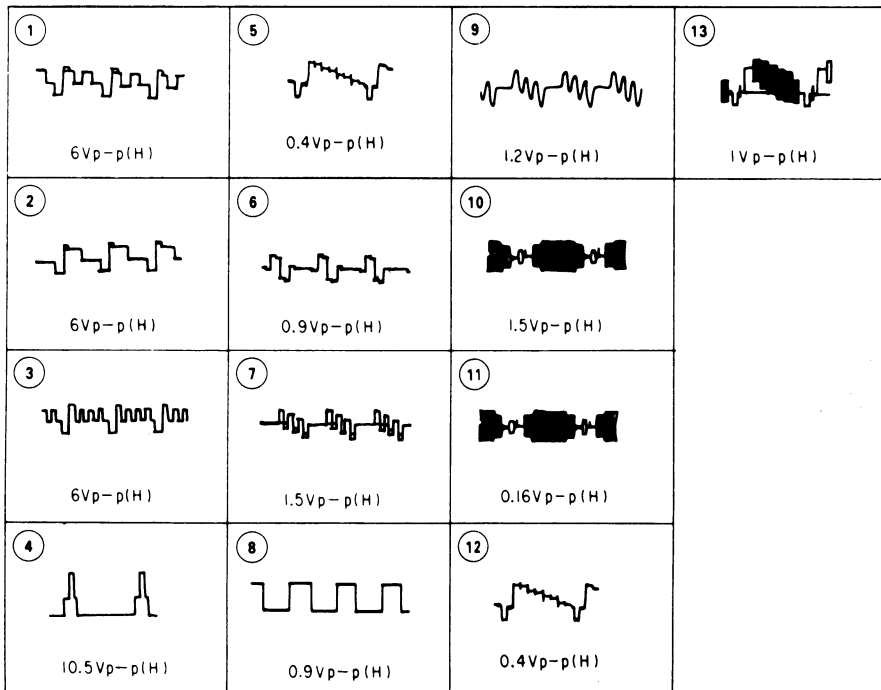


A
(SIGNAL.TUNER)
BAND SW

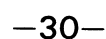
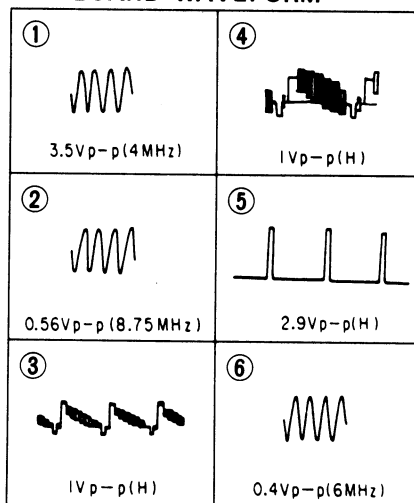


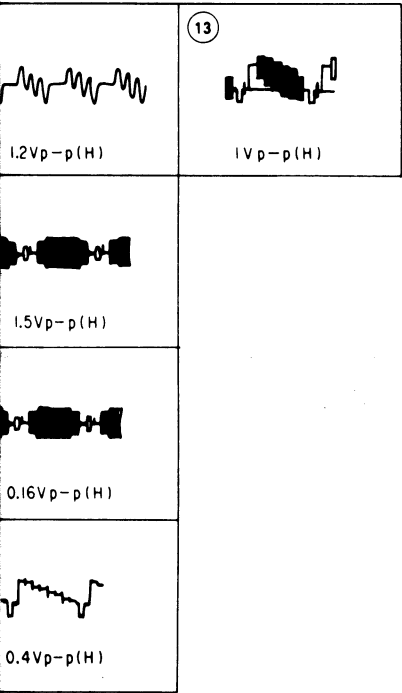
B
(Y-CHROMA)

- **B BOARD WAVEFORM**

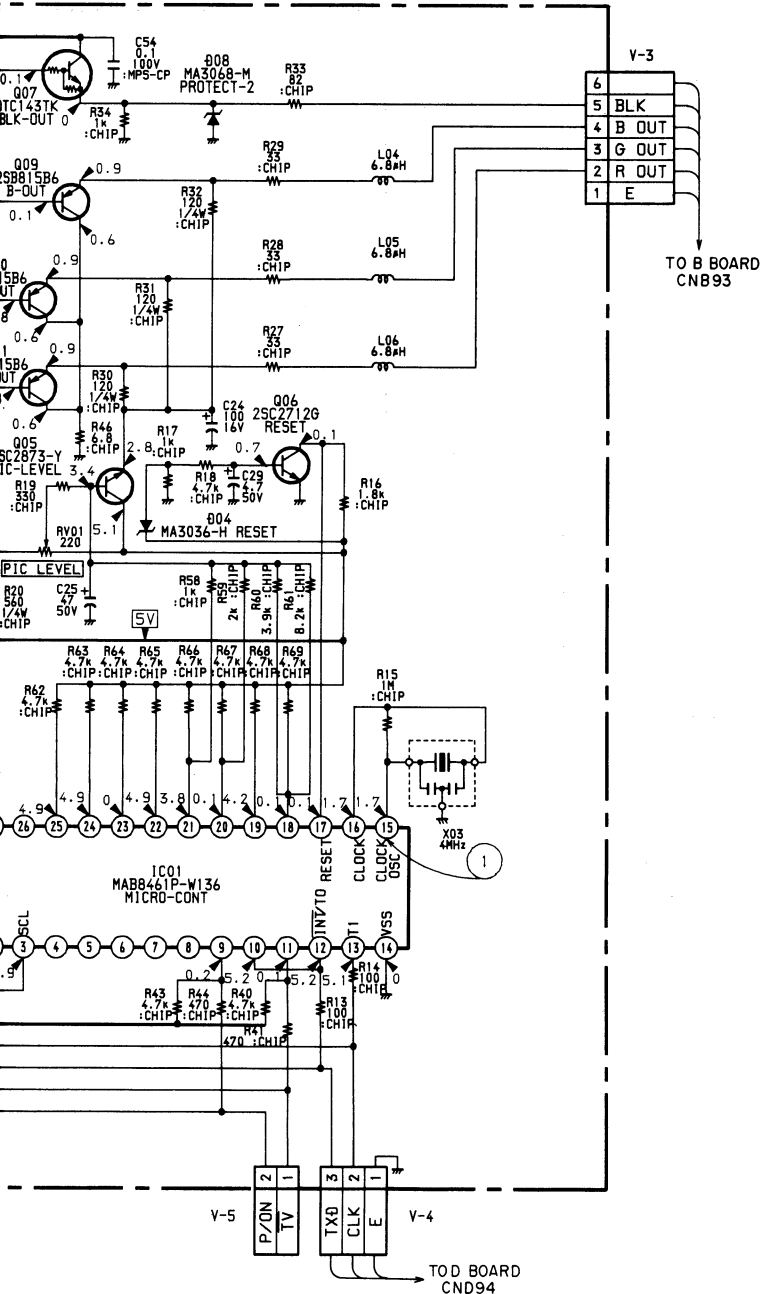
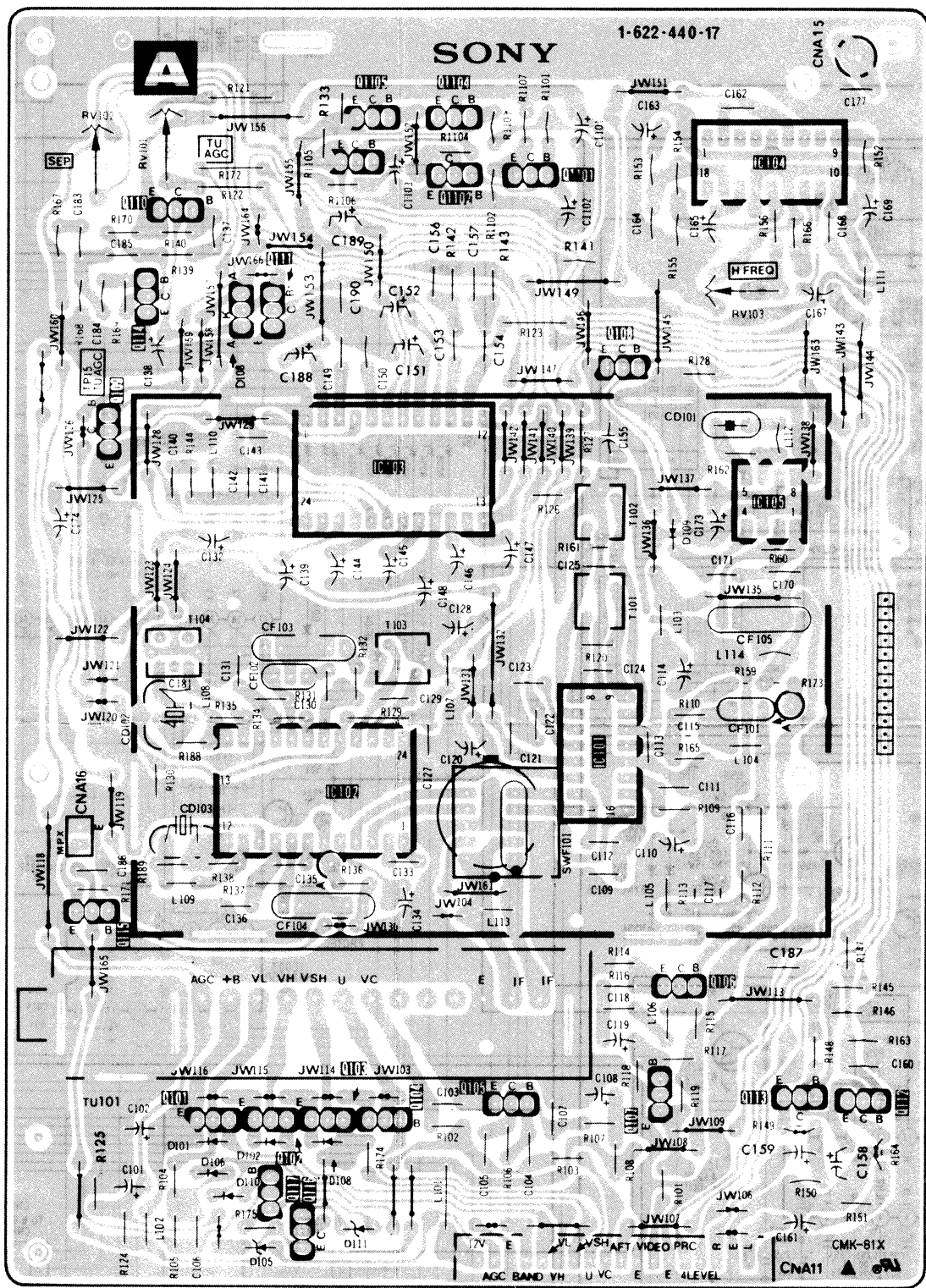


- **V BOARD WAVEFORM**

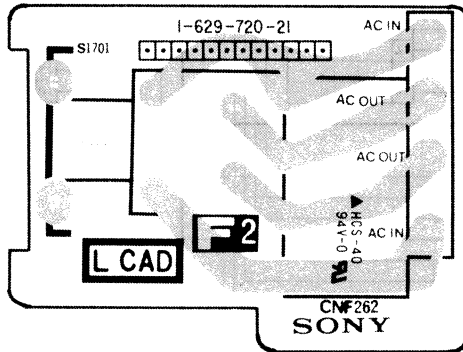




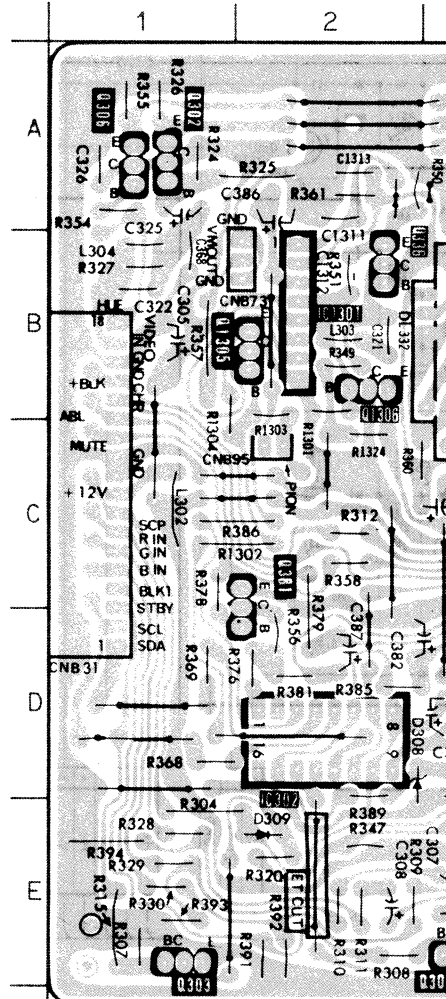
— A Board —



— F2 Board —



— B Board —



NAL TUNER,
ND SW, VIF, SIF

B

R-G-B INTERFACE,
D/A CONVERTER,
CHROMA DECODER

F1

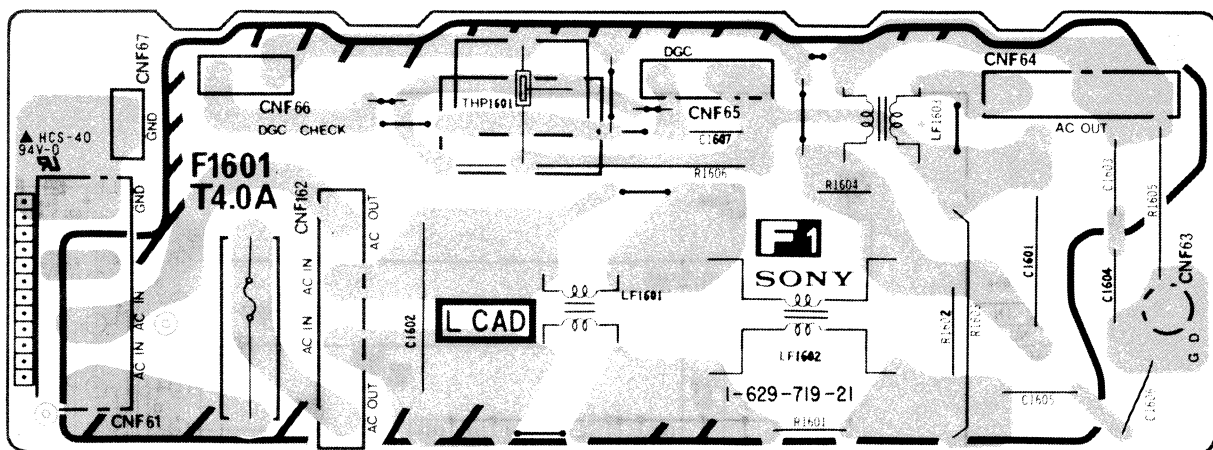
(LINE FILTER)

F2

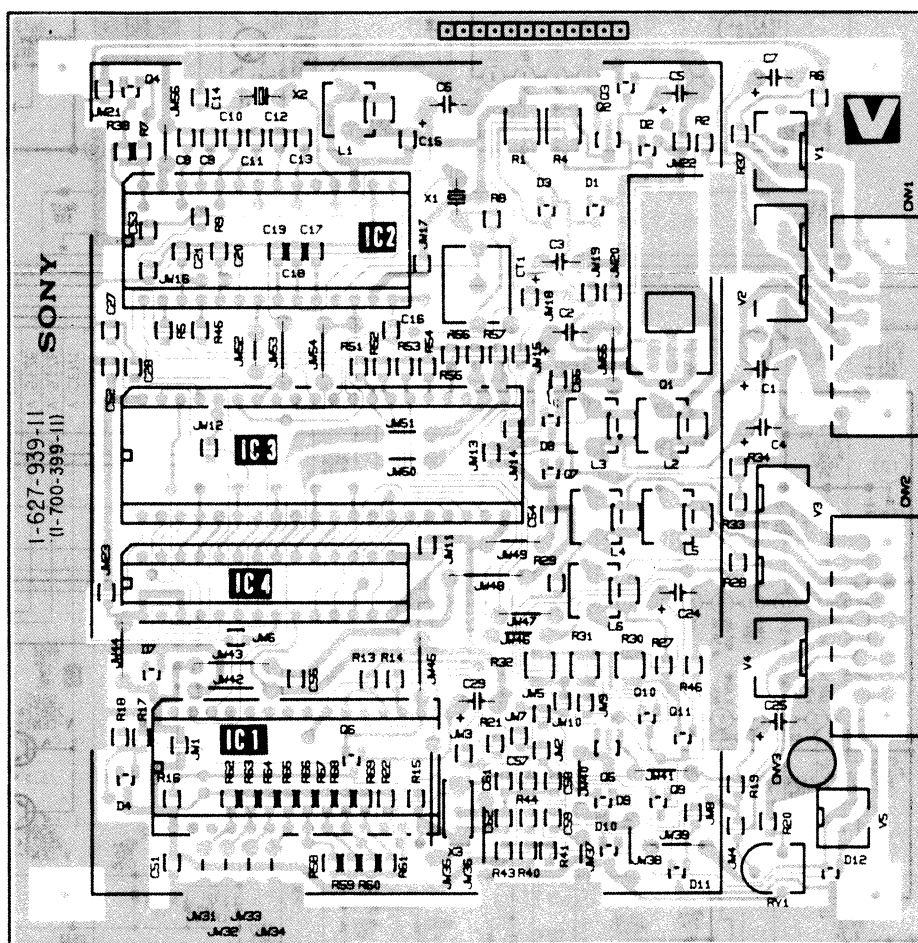
V

(TELETEXT)

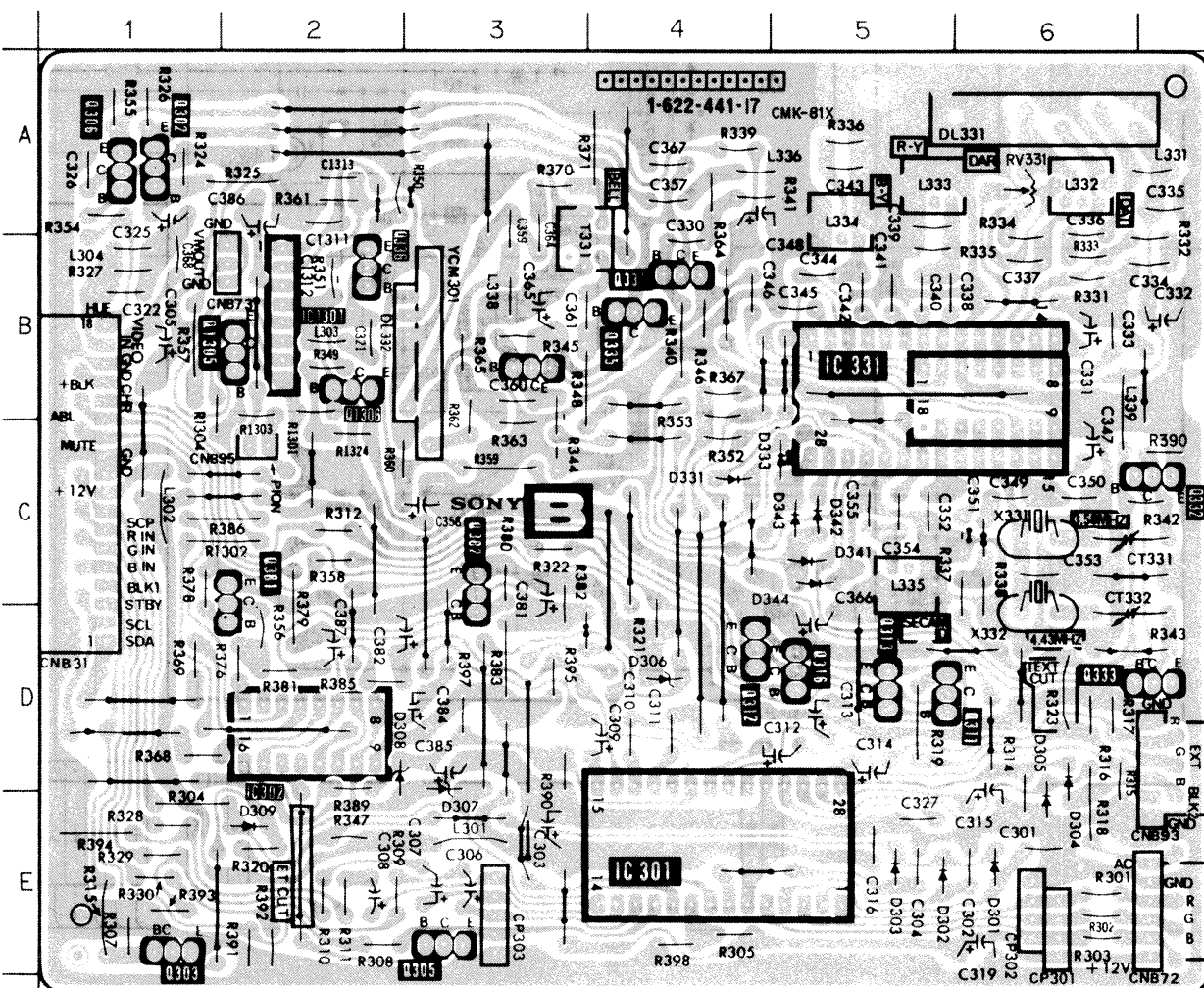
— F1 Board —



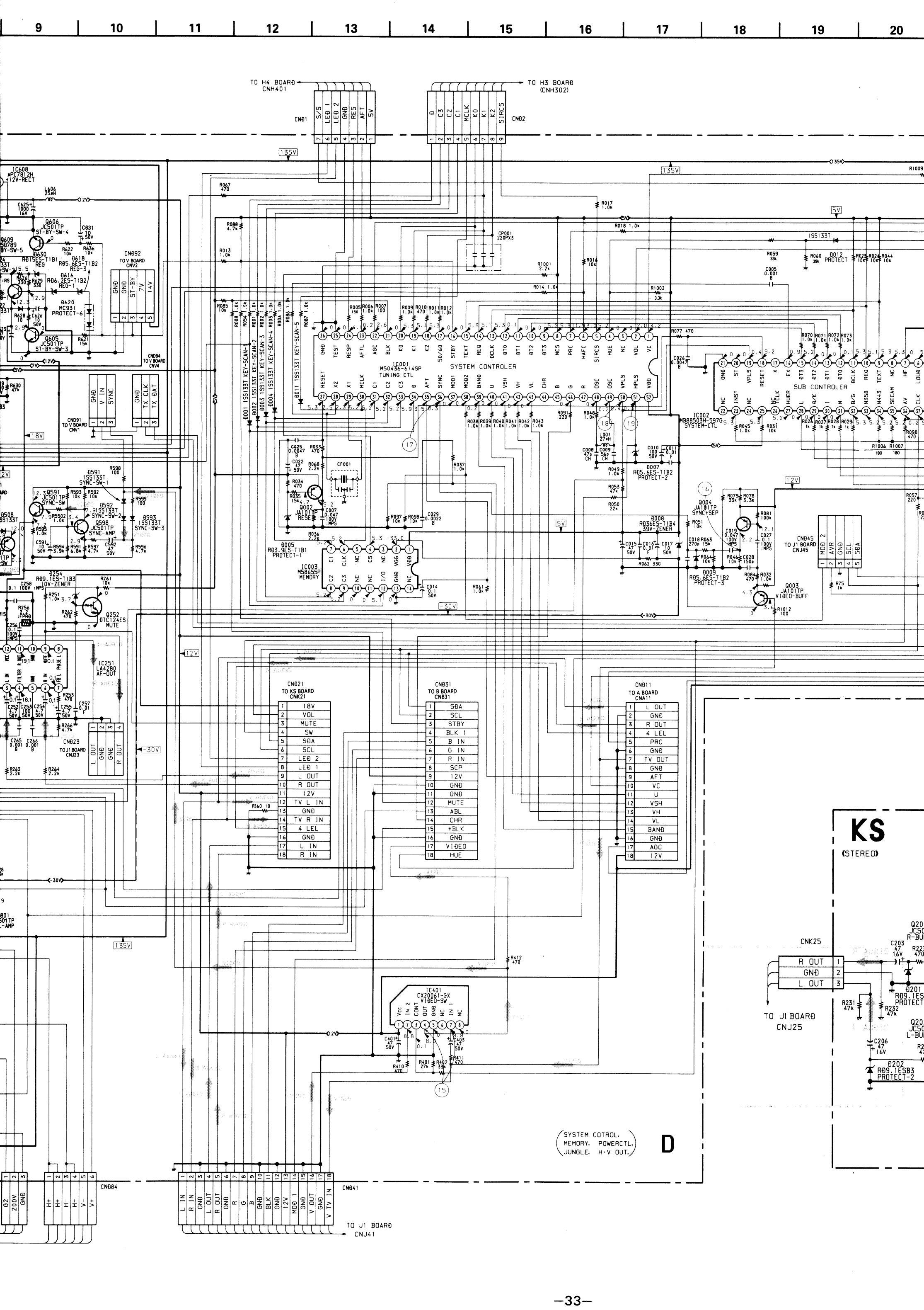
— V Board —



— B Board —



IC		DIODE	
IC301	E-4	D301	E-6
IC302	D-2	D302	E-5
IC331	B-5	D303	E-5
TRANSISTOR		D304	E-6
		D305	E-6
		D307	E-3
		D309	E-2
		D331	C-4
Q302	A-1	D333	C-5
Q303	E-1	D341	C-5
Q305	E-3	VARIABLE RESISTOR	
Q306	A-1		
Q311	D-5		
Q312	D-4		
Q313	D-5		
Q316	D-5	RV331	A-6
Q331	B-4	CT331	C-6
Q332	C-6	CT332	D-6
Q333	D-6		
Q334	B-3		
Q335	B-4		
Q336	B-2		
Q381	C-2		
Q382	C-3		
Q1316	B-2		



SYSTEM CONTROLLER

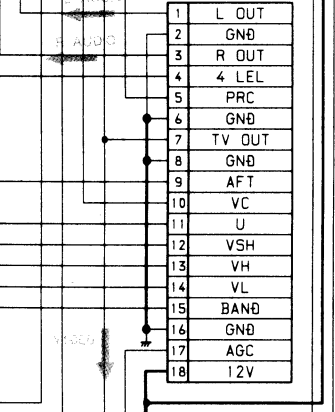
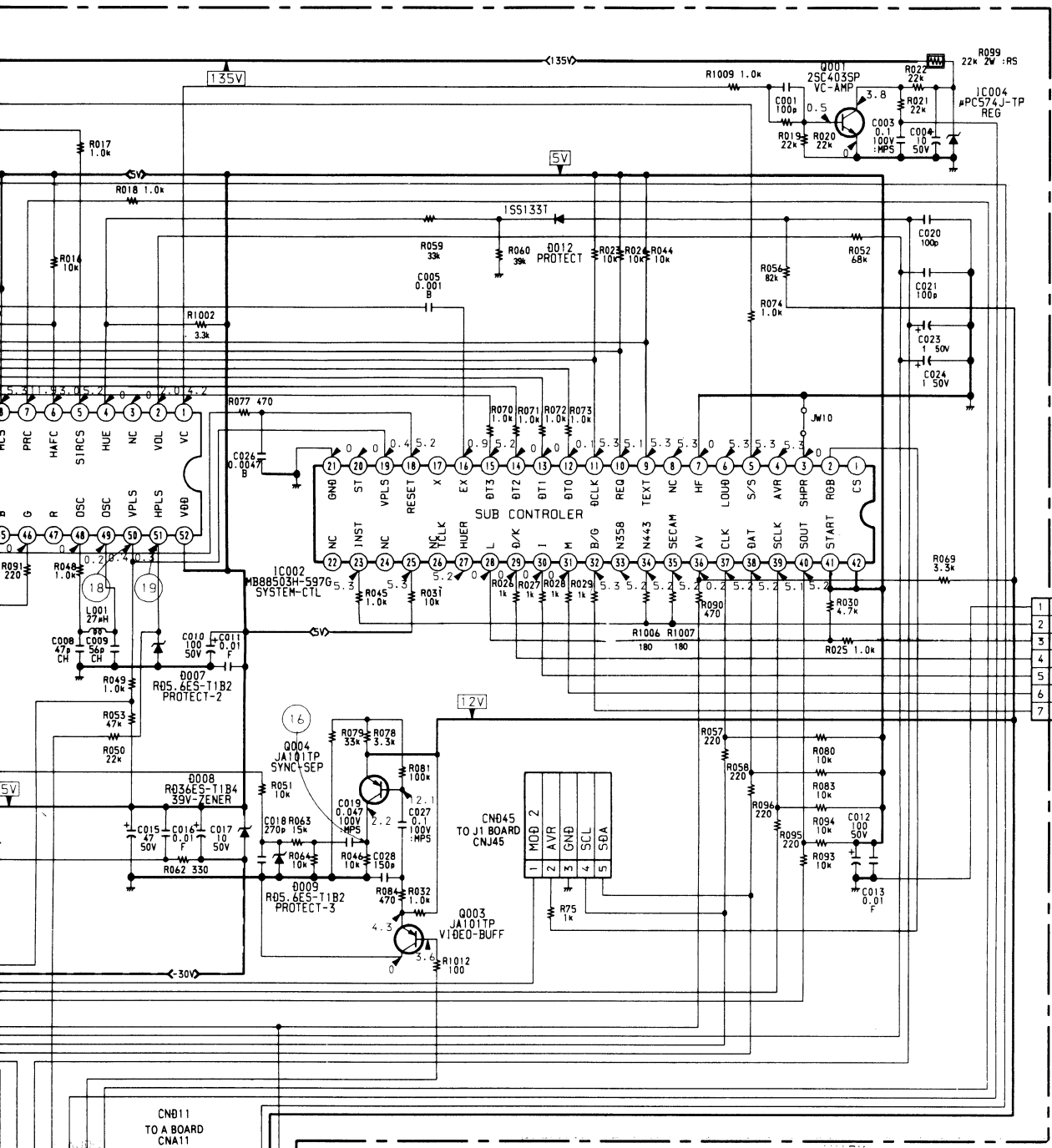
SUB CONTROLLER

KS
(STEREO)

(SYSTEM COTROL,
MEMORY, POWERCTL,
JUNGLE, H-V OUT,)

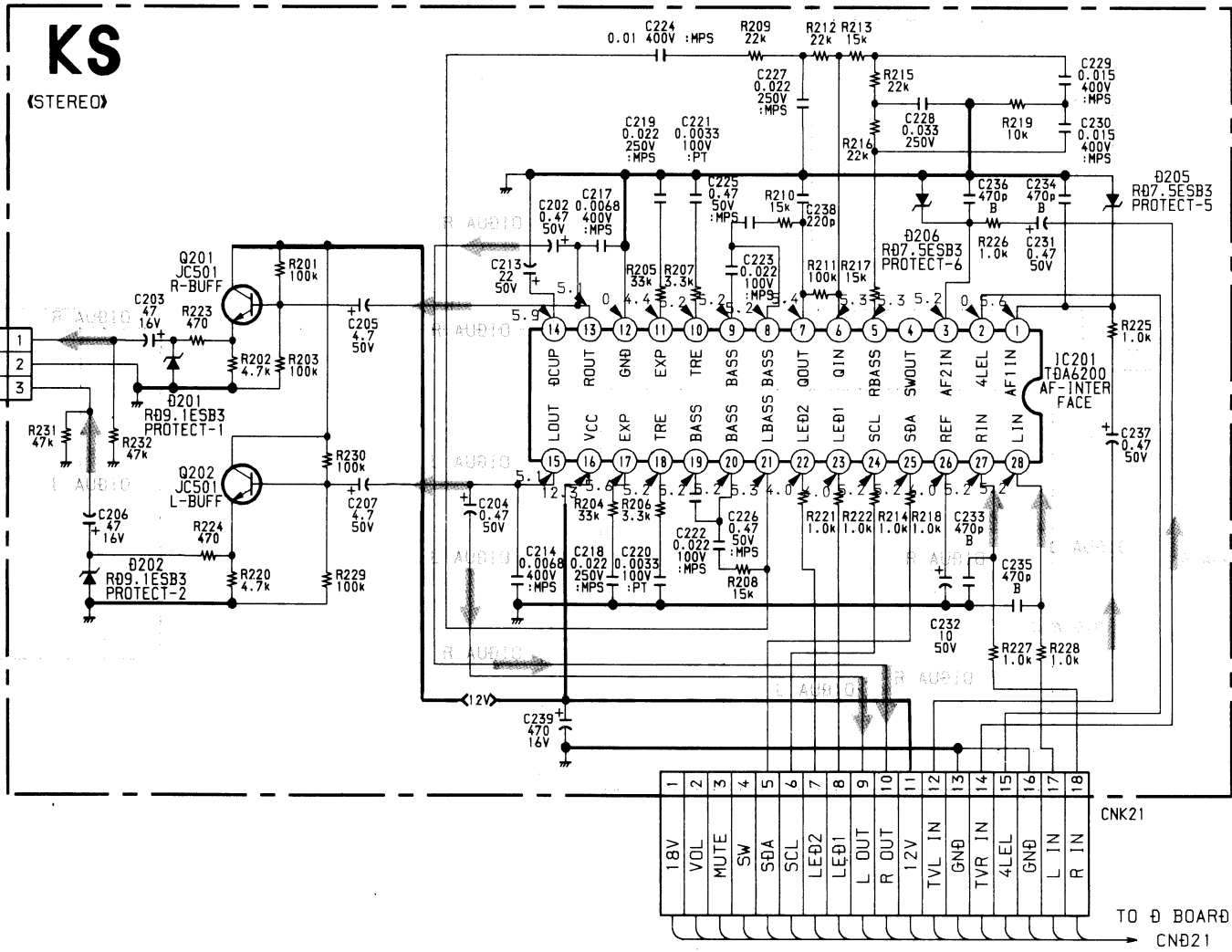
D

BOARD
02)



(SYSTEM CTRL.
MEMORY, POWERCTL,
JUNGLE, H-V OUT.)

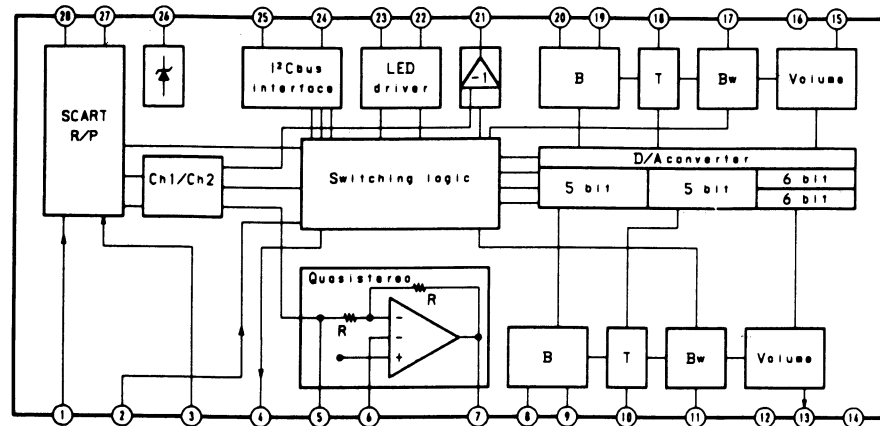
D



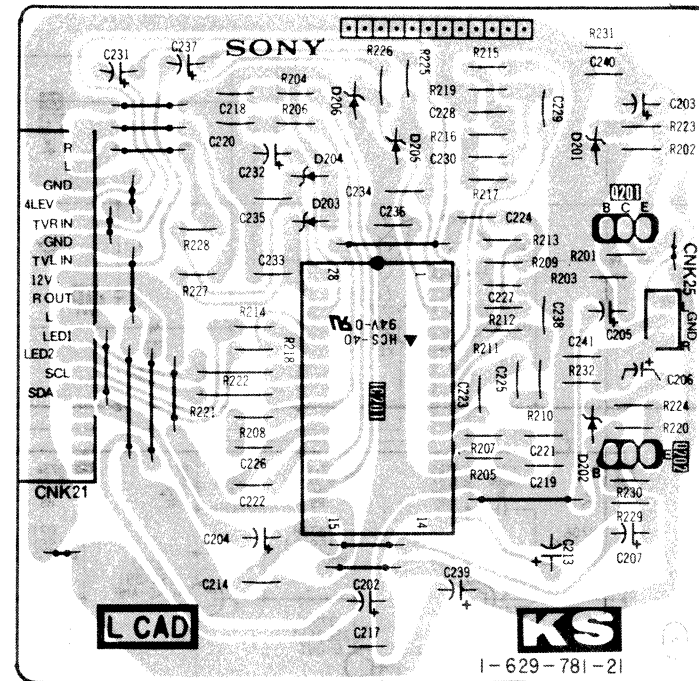
Ks [AF INTERFACE]

D [AF OUT, Y-CHROMA,
JUNGLE, V-H DEF]

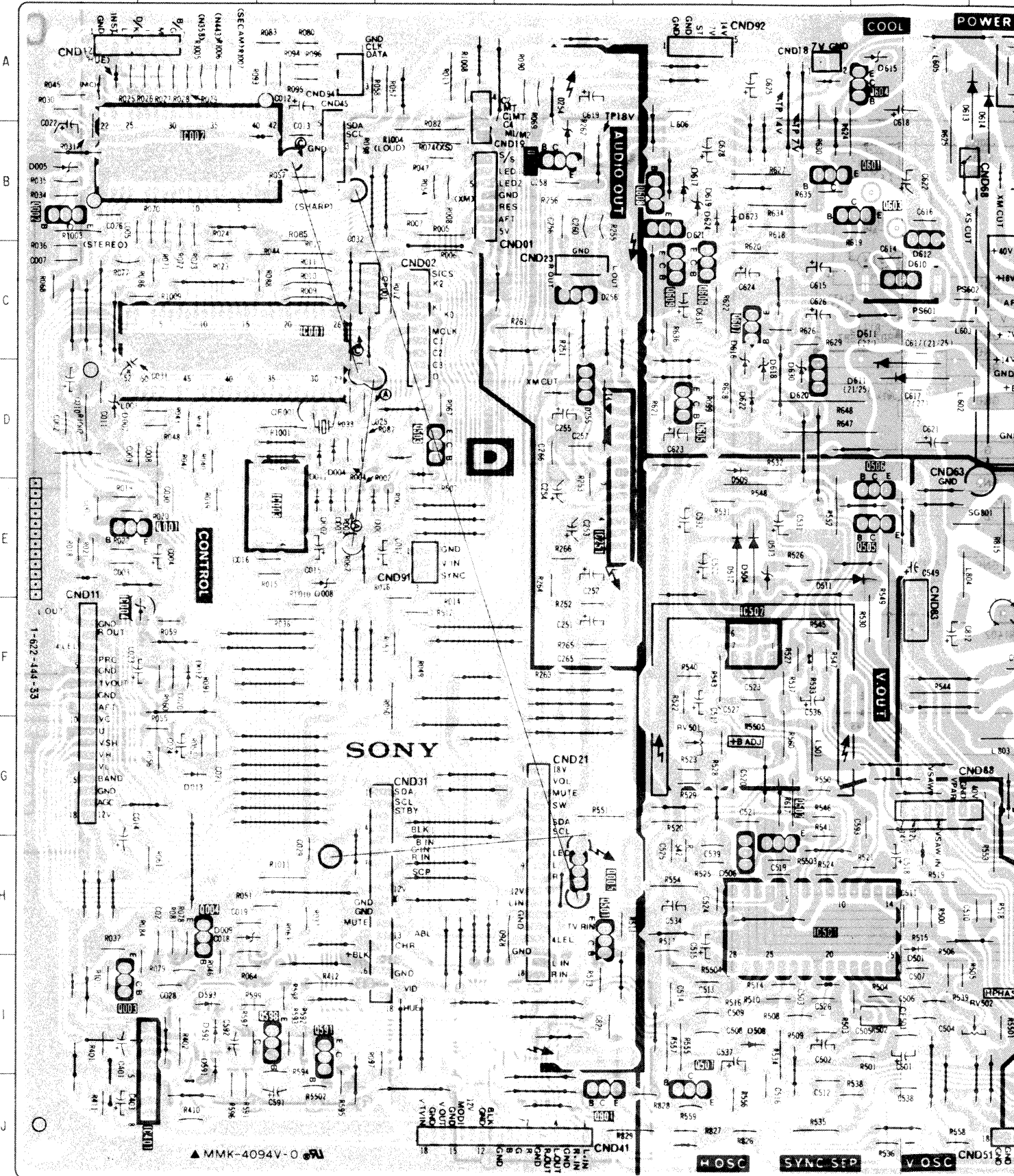
KS BOARD IC201 TDA6200



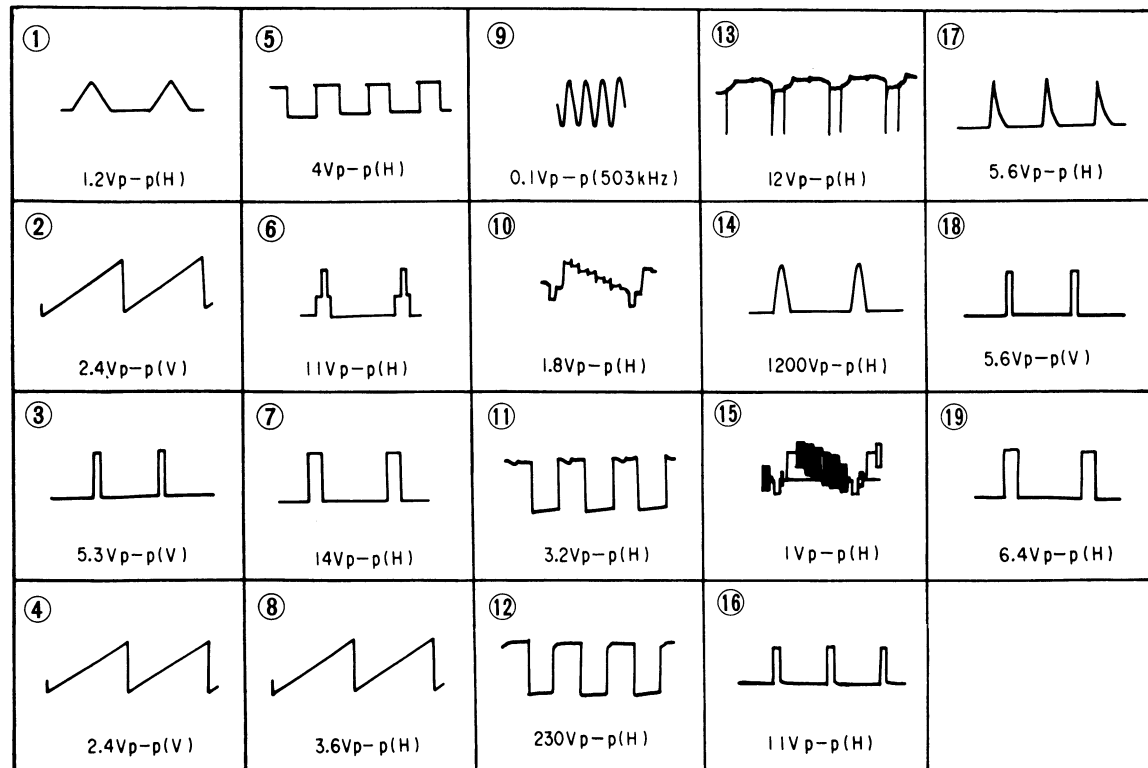
— KS Board —

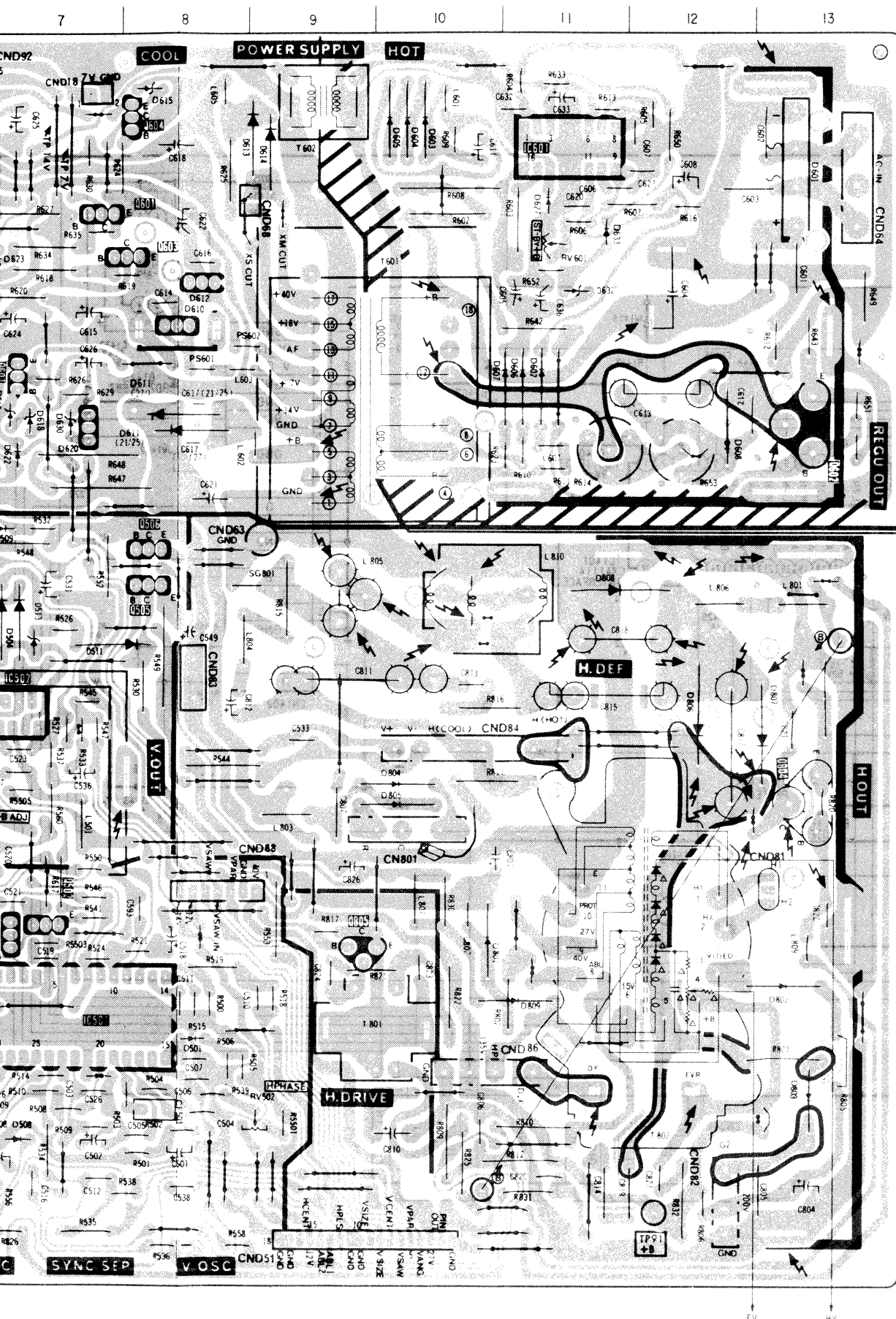


— D Board —



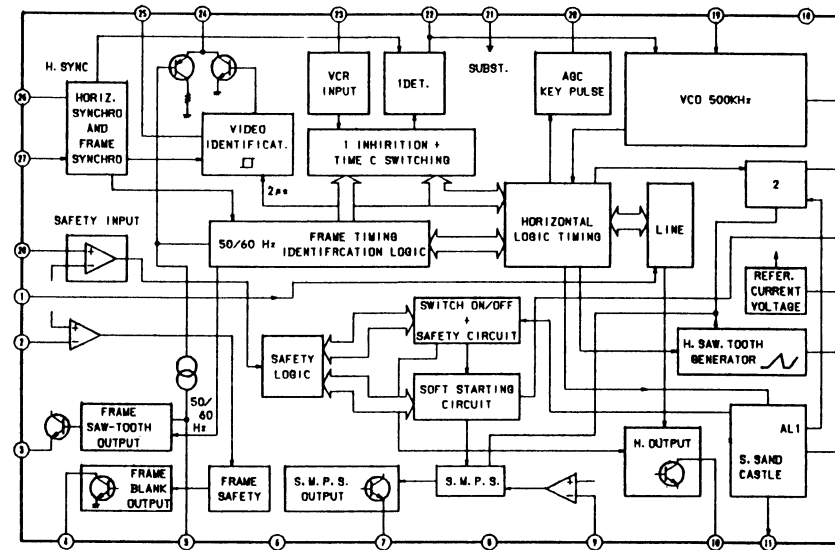
• D BOARD WAVEFORM



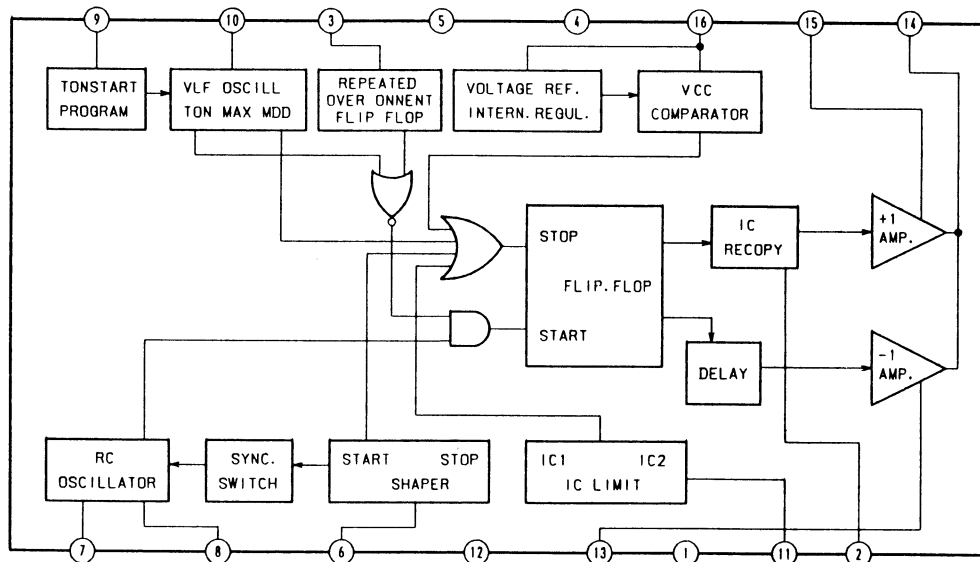


IC		DIODE	
IC001	D-3	D001	E-4
IC002	B-2	D002	E-3
IC003	E-3	D003	E-3
IC004	F-2	D004	D-3
IC251	E-6	D005	B-1
IC401	J-2	D007	D-1
IC501	H-7	D008	F-3
IC502	F-7	D009	I-3
IC601	B-11	D011	E-3
		D012	F-2
		D013	G-2
TRANSISTOR			
Q001	E-2	D254	B-5
Q002	B-1	D501	I-8
Q003	I-2	D504	E-7
Q004	H-2	D506	H-7
Q252	B-6	D508	I-7
Q501	H-6	D511	F-8
Q502	H-7	D512	E-7
Q503	D-4	D513	E-7
Q505	E-8	D591	J-2
Q506	E-8	D592	I-2
Q507	J-6	D593	I-2
Q591	I-3	D601	B-13
Q598	I-3	D602	C-11
Q601	B-8	D603	A-10
Q602	D-13	D604	A-10
Q603	B-8	D605	A-10
Q604	A-8	D606	C-11
Q605	D-6	D607	C-11
Q606	C-6	D608	D-11
Q607	C-7	D610	C-8
Q608	B-6	D611	D-8
Q609	C-6	D612	C-8
Q801	J-6	D613	A-9
Q804	G-13	D614	B-9
Q805	H-10	D615	A-8
		D616	D-7
		D617	B-6
		D618	D-7
		D619	B-6
		D620	D-8
		D621	C-6
		D622	D-7
		D623	C-7
		D624	C-7
		D627	B-11
		D630	D-7
		D632	C-11
		D633	C-11
		D801	H-11
		D802	H-13
		D803	I-13
		D804	G-10
		D805	G-10
		D806	F-12
		D808	E-12
		D809	H-11
		VARIABLE RESISTOR	
		RV501	G-6
		RV502	I-9
		RV601	B-11

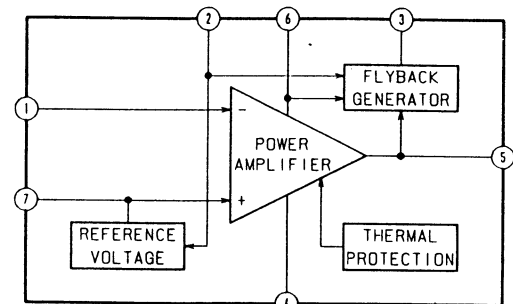
D BOARD IC501 TEA2028A



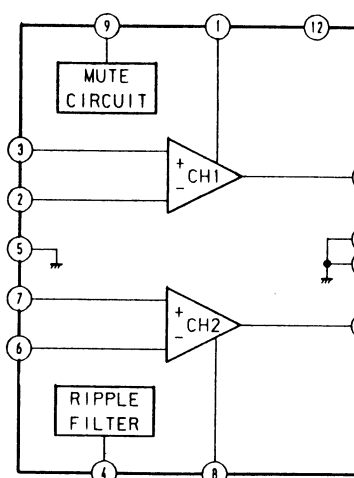
D BOARD IC601 TEA2164

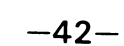


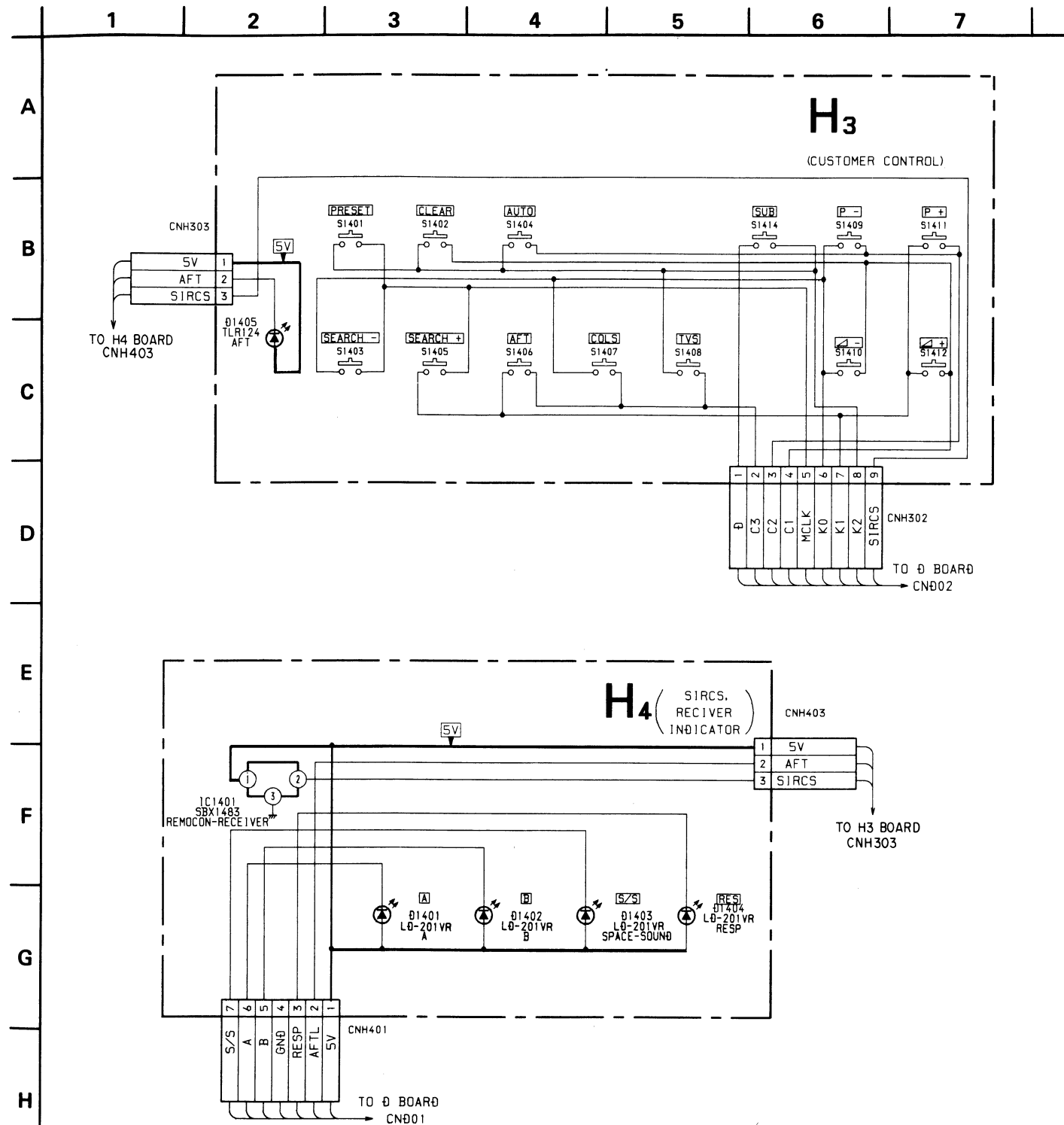
D BOARD IC502 TDA8170



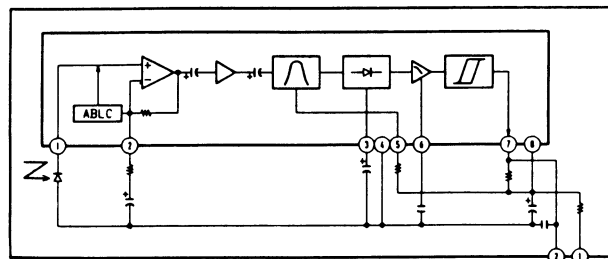
D BOARD IC251 LA4280







H4 BOARD IC1401 SBX-1483



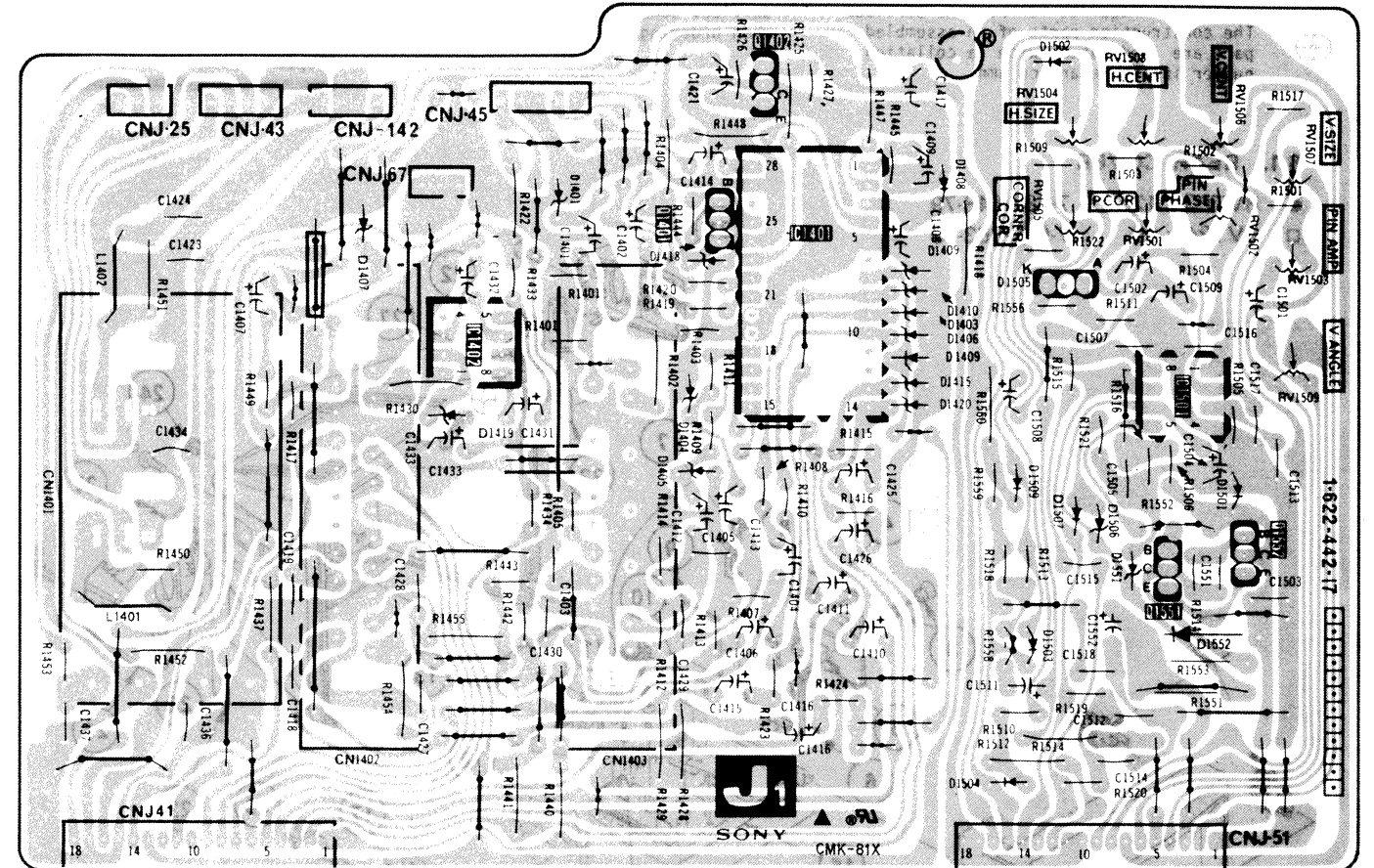
J1

[INTERFACE]

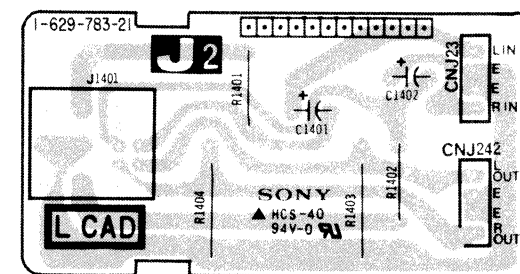
J2

[HEADPHONE JACK]

- J1 Board -

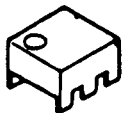


- J2 Board -

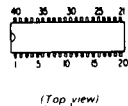


5-5. SEMICONDUCTORS

BX1387
SBX1483



SAA5243E
SDA5241



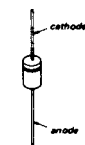
DTA114ES
DTA144ES
DTC114ES
DTC124ES
DTC144ES
2SA1048
2SA1175
2SC403SP
2SC1740SRT
2SC2458
2SC2603
2SC2710



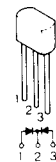
2SB740
2SC1475
2SD789



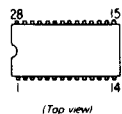
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ERC25-06S
ERD29-08J



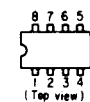
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TDA6200
TDA6600
TEA2028B
TMM2063D



TBA129
TEA2014A
TEA2031A



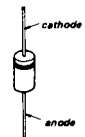
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2SB815B6
2SC2712G



2SB1185
2SD1761



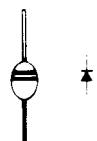
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ERC24-06S
ERD28-06S
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RGP01-17PKG23
RGP10GPKG23
RGP15GPKG23
1SS168
1SS238
1S1555
10E2



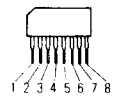
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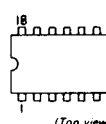
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V19E



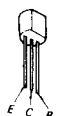
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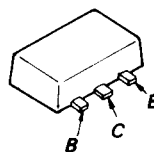
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TDA2558



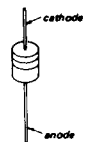
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JC501



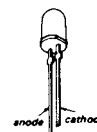
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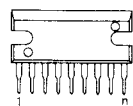
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RD4.7ES-B1
RD5.6ES-B2
RD6.2ES-B2
RD6.8ES-B2
RD7.5ES-B3
RD9.1ES-B3
RD10ES-B3
RD15ES-B1
RD36ES-B4
RD39ES-B4
1SS119
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1SS133



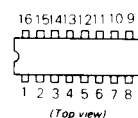
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TEA2164



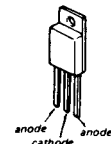
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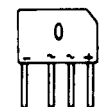
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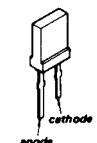
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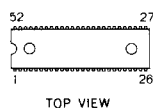
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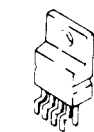
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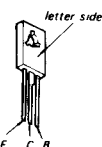
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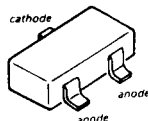
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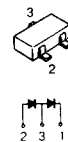
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2SC2611
2SC2688
2SC2690A



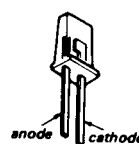
DAN-202K



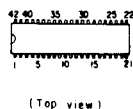
MA3036H
MA3056M
MA3068M
MA3130L



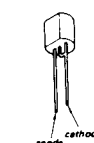
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MB88503H



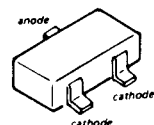
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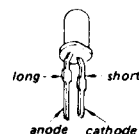
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2SC2958
2SD773
2SD774



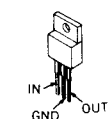
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TLR124
LD201VR



NJM7812B
μPC7812J



SECTION 6

EXPLODED VIEWS

NOTE:

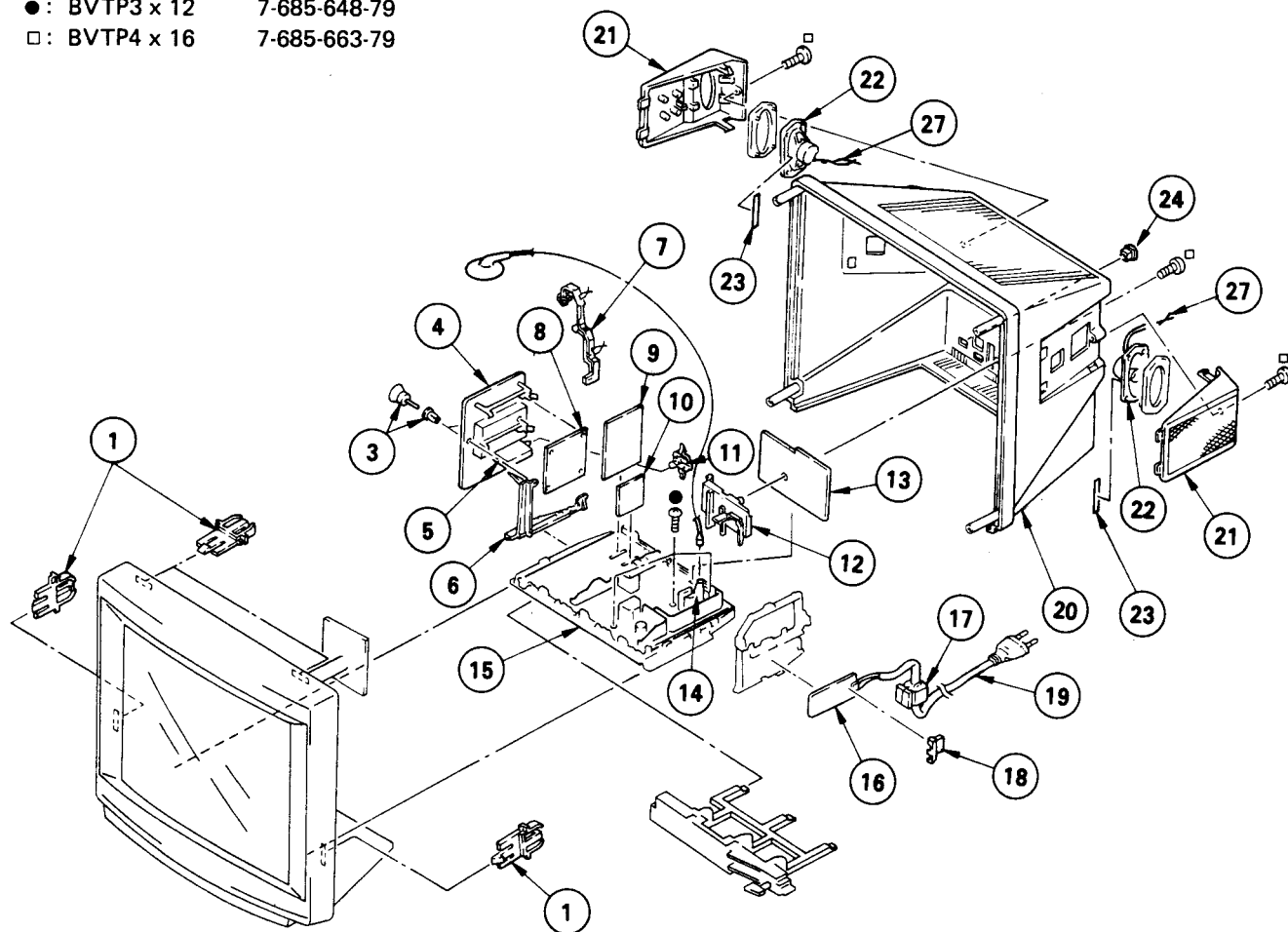
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ▲ are critical for safety.
Replace only with part number specified.

6-1. REAR COVER

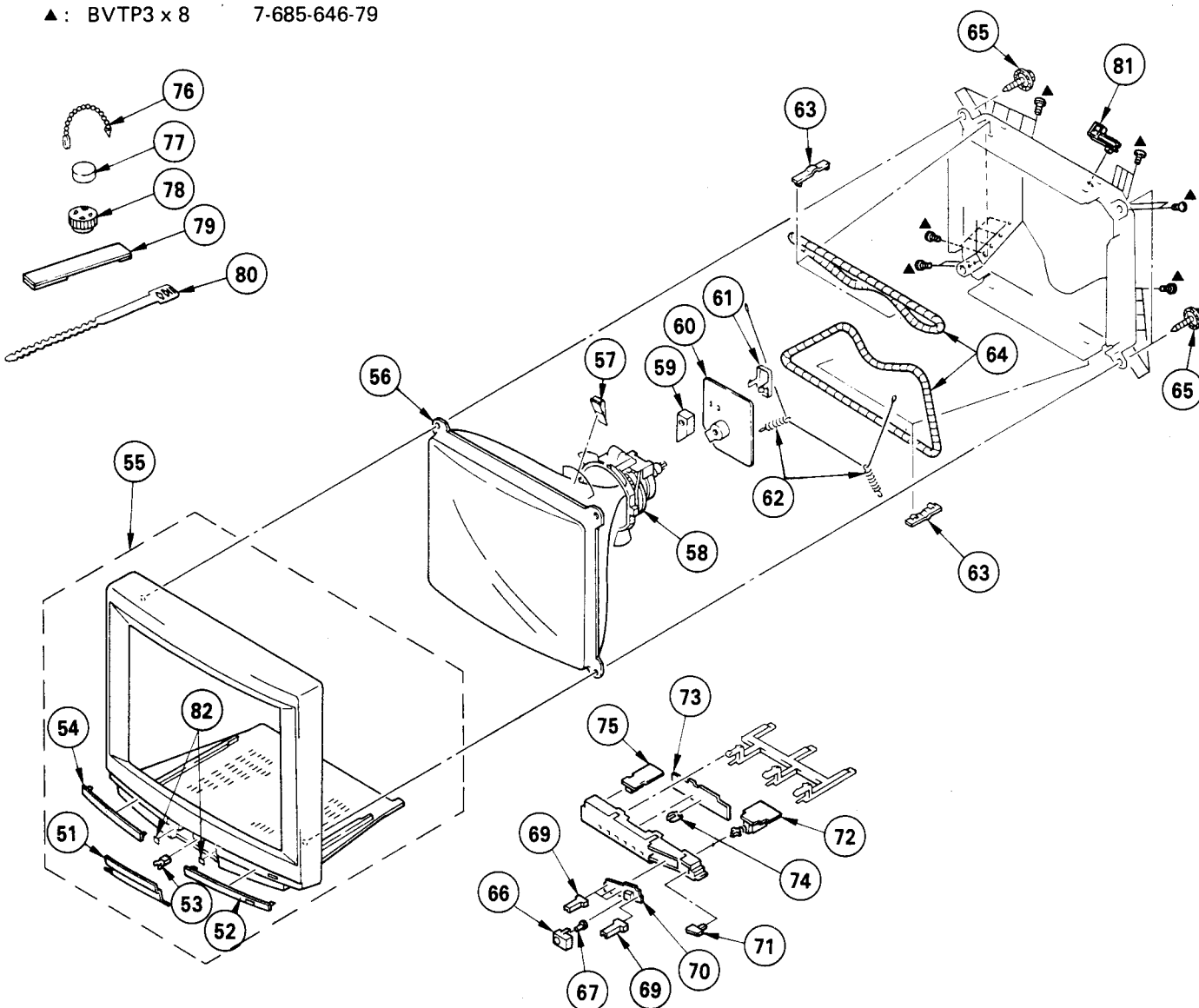
- : BVTP3 x 12 7-685-648-79
□: BVTP4 x 16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-382-745-01	HOLDER, RC		13	★A-1371-373-A	J1 BOARD, COMPLETE	
3	4-386-618-01	RIVET, T TYPE		14	▲.1-439-416-11	TRANSFORMER ASSY, FLYBACK	
4	★A-1296-476-A	A BOARD, COMPLETE		15	★A-1345-720-A	D BOARD, COMPLETE	
5	▲.1-465-053-11	TUNER, ET (UV-615S)		16	★1-629-719-21	F1 BOARD	
6	★4-386-629-12	BRACKET, A		17	▲.4-022-115-01	HOLDER, AC CODE	
7	★4-386-628-11	SUPPORTER, PC BOARD		18	★4-386-620-01	COVER, POWER	
8	★A-1347-030-A	V BOARD, COMPLETE		19	▲.1-559-346-12	CORD, POWER (WITH CONNECTOR)	
9	★A-1135-498-A	B BOARD, COMPLETE		20	4-387-818-11	COVER, REAR	
10	★1-629-781-21	KS BOARD		21	X-4385-930-3	BOARD ASSY, BAFFLE	
11	★4-386-617-01	HOLDER, TERMINAL		22	1-503-642-41	SPEAKER	
12	★4-386-624-11	BRACKET, J		23	4-387-886-01	SPACER, BAFFLE BOARD	
				24	4-389-292-01	BUSHING, CORD	
				27	1-574-565-11	CORD (WITH PLUG)	

6-2. PICTURE TUBE

▲: BVTP3 x 8 7-685-646-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-389-279-01	DOOR, CONTROL	51-54	66	*4-388-955-01	BRACKET (B), LIGHT GUIDE	
52	4-392-804-01	PLATE (C), ORNAMENTAL		67	*4-374-987-01	GUIDE, LIGHT	
53	4-386-710-01	CATCHER, PUSH		69	*4-387-825-01	HOLDER, LED	
54	4-392-805-01	PLATE (D), ORNAMENTAL		70	*1-629-786-21	H4 BOARD	
55	X-4385-965-1	BEZNET ASSY		71	4-389-278-01	BUTTON, POWER	
56 ▲	8-733-224-05	PICTURE TUBE (A59JWC60X)		72	*1-629-720-21	F2 BOARD	
57	3-703-961-01	SPACER, DY		73	*1-629-785-21	H3 BOARD	
58 ▲	1-451-311-31	DEFLECTION YOKE (Y25FXA)		74	*4-384-208-01	HOLDER, LED	
59	*4-379-167-01	COVER (MAIN), CV		75	*1-629-783-21	J2 BOARD	
60	*A-1330-849-A	C BOARD, COMPLETE		76	4-308-870-00	CLIP, LEAD WIRE	
61	*4-379-160-01	COVER (REAR LID), CV		77	1-452-032-00	MAGNET, DISK; 10MM ϕ	
62	4-303-774-XX	SPRING		78	1-452-094-00	MAGNET, ROTATABLE DISK; 150MM ϕ	
63	*4-385-916-01	HOLDER (D)		79	X-4387-214-1	PERMALOY ASSY, CONVERGENCE	
64 ▲	1-426-372-11	COIL, DEMAGNETIZATION		80	3-701-007-00	BAND, BINDING	
65	4-373-263-01	SCREW (M), PT		81	*4-387-216-01	HOLDER, LEAD	
				82	4-314-871-00	CUSHION	

The components identified by shading and mark ▲ are critical for safety.
Replace only with part number specified.

A

C

REF.NO.	PART NO.	DESCRIPTION	REMARK
R153	1-249-416-11	CARBON 820 5% 1/4W	
R154	1-249-441-11	CARBON 100K 5% 1/4W	
R155	1-249-430-11	CARBON 12K 5% 1/4W	
R156	1-247-881-00	CARBON 120K 5% 1/4W	
R163	1-249-424-11	CARBON 3.9K 5% 1/4W	
R165	1-249-423-11	CARBON 3.3K 5% 1/4W	
R166	1-249-437-11	CARBON 47K 5% 1/4W	
R174	1-249-429-11	CARBON 10K 5% 1/4W	
R175	1-249-429-11	CARBON 10K 5% 1/4W	
R188	1-249-419-11	CARBON 1.5K 5% 1/4W	
R189	1-249-419-11	CARBON 1.5K 5% 1/4W	

<VARIABLE RESISTOR>

RV101	1-237-753-11	RES, ADJ, CARBON 47K	
RV102	1-237-751-11	RES, ADJ, CARBON 10K	
RV103	1-237-753-11	RES, ADJ, CARBON 47K	

<TRANSFORMER>

T101	1-404-493-00	COIL	
T102	1-404-493-00	COIL	
T103	1-404-493-00	COIL	

*A-1330-849-A C BOARD, COMPLETE

*4-379-160-01 COVER (REAR LID), CV
*4-379-167-01 COVER (MAIN), CV
*4-386-664-01 SPRING

<CAPACITOR>

C703	1-102-980-00	CERAMIC 270PF 5% 50V	
C704	1-102-116-00	CERAMIC 680PF 10% 50V	
C705	1-102-978-00	CERAMIC 220PF 5% 50V	
C706	1-102-116-00	CERAMIC 680PF 10% 50V	
C707	1-162-116-00	CERAMIC 680PF 10% 2KV	
C708	1-162-114-00	CERAMIC 0.0047MF 2KV	
C709	1-102-116-00	CERAMIC 680PF 10% 50V	
C710	1-123-947-00	ELECT 10MF 20% 250V	
C711	1-101-880-00	CERAMIC 47PF 5% 50V	
C712	1-102-980-00	CERAMIC 270PF 5% 50V	
C714	1-124-360-00	ELECT 1000MF 20% 16V	
C716	1-162-622-11	CERAMIC 330PF 10% 400V	
C717	1-102-114-00	CERAMIC 470PF 10% 50V	
C718	1-102-114-00	CERAMIC 470PF 10% 50V	
C719	1-102-114-00	CERAMIC 470PF 10% 50V	

<CONNECTOR>

CNC71	*1-506-371-00	PIN, CONNECTOR 2P	
CNC72	*1-564-883-11	PLUG, CONNECTOR 6P	
CNC81	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)	
CNC82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	

<DIODE>

D701	8-719-110-14	DIODE RD9.1ES-B3	
D702	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D706	8-719-911-19	DIODE 1SS119	

REF.NO.	PART NO.	DESCRIPTION	REMARK
D707	8-719-911-19	DIODE 1SS119	
D708	8-719-911-19	DIODE 1SS119	
D709	8-719-911-19	DIODE 1SS119	
D710	8-719-911-19	DIODE 1SS119	
D711	8-719-925-06	DIODE ERC25-06S	
D713	8-719-911-19	DIODE 1SS119	
<JACK>			
J701	1-526-798-51	SOCKET, PICTURE TUBE	
<COIL>			
L704	1-410-878-21	INDUCTOR 33UH	
<TRANSISTOR>			
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-326-11	TRANSISTOR 2SC2611	
Q704	8-729-200-17	TRANSISTOR 2SA1091	
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q706	8-729-326-11	TRANSISTOR 2SC2611	
Q707	8-729-200-17	TRANSISTOR 2SA1091	
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q709	8-729-326-11	TRANSISTOR 2SC2611	
Q710	8-729-200-17	TRANSISTOR 2SA1091	
<RESISTOR>			
R704	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R705	1-202-824-00	SOLID 3.3K 10% 1/2W	
R706	1-249-409-11	CARBON 220 5% 1/4W	
R707	1-249-412-11	CARBON 390 5% 1/4W	
R708	1-249-401-11	CARBON 47 5% 1/4W	
R709	1-202-844-00	SOLID 330K 10% 1/2W	
R710	1-215-465-00	METAL 68K 1% 1/6W	
R712	1-249-417-11	CARBON 1K 5% 1/4W	
R713	1-215-471-00	METAL 120K 1% 1/6W	
R714	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R715	1-202-824-00	SOLID 3.3K 10% 1/2W	
R716	1-249-409-11	CARBON 220 5% 1/4W	
R717	1-249-415-11	CARBON 680 5% 1/4W	
R718	1-202-814-11	SOLID 33K 10% 1/2W	
R719	1-249-401-11	CARBON 47 5% 1/4W	
R720	1-249-423-11	CARBON 3.3K 5% 1/4W	
R721	1-202-842-11	SOLID 220K 10% 1/2W	
R722	1-202-848-00	SOLID 680K 10% 1/2W	
R723	1-249-417-11	CARBON 1K 5% 1/4W	
R724	1-202-846-00	SOLID 470K 10% 1/2W	
R725	1-202-838-00	SOLID 100K 10% 1/2W	
R726	1-202-824-00	SOLID 3.3K 10% 1/2W	
R727	1-249-409-11	CARBON 220 5% 1/4W	
R728	1-216-347-11	METAL OXIDE 0.68 5% 1W	F
R729	1-249-416-11	CARBON 820 5% 1/4W	
R730	1-249-401-11	CARBON 47 5% 1/4W	
R731	1-249-423-11	CARBON 3.3K 5% 1/4W	
R732	1-249-415-11	CARBON 680 5% 1/4W	
R733	1-249-415-11	CARBON 680 5% 1/4W	
R734	1-249-405-11	CARBON 100 5% 1/4W	
R735	1-215-493-00	METAL 1M 1% 1/6W	
R736	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R737	1-215-491-00	METAL 820K 1% 1/6W	
R739	1-249-417-11	CARBON 1K 5% 1/4W	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<VARIABLE RESISTOR>				C509	1-106-220-00	MYLAR	0.1MF
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M		C510	1-161-959-00	CERAMIC	22PF
RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M					10% 100V
RV703	1-237-749-11	RES, ADJ, CARBON 2200					10% 500V
RV704	1-237-749-11	RES, ADJ, CARBON 2200		C511	1-108-620-11	MYLAR	0.0033MF
*****				C512	1-106-220-00	MYLAR	0.1MF
*A-1345-720-A D BOARD, COMPLETE				C513	1-108-614-11	MYLAR	0.001MF
*****				C514	1-106-228-00	MYLAR	0.22MF
*4-341-751-01	EYELET			C515	1-124-499-11	ELECT	1MF
*4-341-752-01	EYELET						10% 100V
<CAPACITOR>				C516	1-108-614-11	MYLAR	0.001MF
C001	1-102-973-00	CERAMIC	100PF	C517	1-124-252-00	ELECT	0.33MF
C003	1-106-220-00	MYLAR	0.1MF	C518	1-124-902-00	ELECT	0.47MF
C004	1-123-875-11	ELECT	10MF	C519	1-136-173-00	FILM	0.47MF
C005	1-102-074-00	CERAMIC	0.001MF	C520	1-102-121-00	CERAMIC	0.0022MF
C007	1-106-383-00	MYLAR	0.047MF				10% 50V
				C521	1-106-220-00	MYLAR	0.1MF
C008	1-101-880-00	CERAMIC	47PF	C522	1-124-122-11	ELECT	100MF
C009	1-101-884-00	CERAMIC	56PF	C523	1-108-614-11	MYLAR	0.001MF
C010	1-124-122-11	ELECT	100MF	C524	1-108-798-11	MYLAR	0.0033MF
C011	1-101-004-00	CERAMIC	0.01MF	C525	1-102-973-00	CERAMIC	100PF
C012	1-124-122-11	ELECT	100MF				5% 50V
				C526	1-102-951-00	CERAMIC	15PF
C013	1-101-004-00	CERAMIC	0.01MF	C527	1-106-220-00	MYLAR	0.1MF
C014	1-124-463-00	ELECT	0.1MF	C531	1-124-190-00	ELECT	680MF
C015	1-124-910-11	ELECT	47MF	C532	1-124-122-11	ELECT	100MF
C016	1-101-004-00	CERAMIC	0.01MF	C533	1-106-216-00	MYLAR	0.068MF
C017	1-123-875-11	ELECT	10MF				10% 100V
				C534	1-124-120-11	ELECT	220MF
C018	1-102-980-00	CERAMIC	270PF	C536	1-131-365-00	TANTALUM	10MF
C019	1-106-383-00	MYLAR	0.047MF	C537	1-124-499-11	ELECT	1MF
C020	1-102-973-00	CERAMIC	100PF	C538	1-108-614-11	MYLAR	0.001MF
C021	1-102-973-00	CERAMIC	100PF	C539	1-102-820-00	CERAMIC	330PF
C022	1-124-910-11	ELECT	47MF				5% 50V
				C591	1-123-875-11	ELECT	10MF
C023	1-124-499-11	ELECT	1MF	C592	1-124-910-11	ELECT	47MF
C024	1-124-499-11	ELECT	1MF	C593	1-102-820-00	CERAMIC	330PF
C025	1-102-125-00	CERAMIC	0.0047MF	C601	1-162-599-12	CERAMIC	0.0047MF
C026	1-102-125-00	CERAMIC	0.0047MF	C602	1-162-599-12	CERAMIC	0.0047MF
C027	1-106-220-00	MYLAR	0.1MF				250V
				C603	1-162-599-12	CERAMIC	0.0047MF
C028	1-101-361-00	CERAMIC	150PF	C604	1-125-318-00	ELECT(BLOCK)	220MF
C029	1-102-121-00	CERAMIC	0.0022MF	C605	1-124-122-11	ELECT	100MF
C251	1-124-927-11	ELECT	4.7MF	C606	1-106-220-00	MYLAR	0.1MF
C252	1-124-927-11	ELECT	4.7MF	C607	1-130-019-00	FILM	0.0012MF
C253	1-124-122-11	ELECT	100MF				5% 50V
				C608	1-123-875-11	ELECT	10MF
C254	1-124-927-11	ELECT	4.7MF	C611	1-124-122-11	ELECT	100MF
C255	1-124-927-11	ELECT	4.7MF	C612	1-162-115-00	CERAMIC	330PF
C256	1-106-220-00	MYLAR	0.1MF	C613	1-136-539-11	FILM	0.0022MF
C257	1-101-004-00	CERAMIC	0.01MF	C614	1-102-030-00	CERAMIC	330PF
C258	1-106-220-00	MYLAR	0.1MF				10% 500V
				C615	1-124-557-11	ELECT	1000MF
C260	1-106-220-00	MYLAR	0.1MF	C616	1-102-030-00	CERAMIC	330PF
C265	1-102-074-00	CERAMIC	0.001MF	C618	1-124-637-11	ELECT	1000MF
C266	1-102-074-00	CERAMIC	0.001MF	C619	1-124-556-11	ELECT	2200MF
C401	1-124-910-11	ELECT	47MF	C620	1-102-074-00	CERAMIC	0.001MF
C403	1-124-910-11	ELECT	47MF				10% 50V
				C621	1-124-347-00	ELECT	100MF
C501	1-124-927-11	ELECT	4.7MF	C622	1-124-556-11	ELECT	2200MF
C502	1-124-927-11	ELECT	4.7MF	C623	1-124-910-11	ELECT	47MF
C503	1-106-371-00	MYLAR	0.015MF	C624	1-124-122-11	ELECT	100MF
C504	1-101-361-00	CERAMIC	150PF	C625	1-124-360-00	ELECT	1000MF
C505	1-108-794-11	MYLAR	0.0015MF				20% 16V
				C626	1-123-875-11	ELECT	10MF
C506	1-106-375-12	MYLAR	0.022MF	C627	1-102-074-00	CERAMIC	0.001MF
C507	1-130-783-00	MYLAR	0.33MF	C631	1-123-875-11	ELECT	10MF
C508	1-106-375-12	MYLAR	0.022MF	C632	1-102-074-00	CERAMIC	0.001MF
				C633	1-124-927-11	ELECT	4.7MF
							20% 50V
				C636	1-123-382-00	ELECT	3.3MF
				C801	1-126-105-11	ELECT	1000MF
				C802	1-102-030-00	CERAMIC	330PF
				C804	1-123-948-00	ELECT	22MF
				C805	1-162-114-00	CERAMIC	0.0047MF
							20% 2KV
				C806	1-106-220-00	MYLAR	0.1MF
							10% 100V

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C807	1-106-395-00	MYLAR 0.15MF 10%	200V	D508	8-719-911-19	DIODE 1SS119	
C810	1-124-494-00	ELECT 33MF	160V	D509	8-719-911-19	DIODE 1SS119	
C811	1-136-113-00	FILM 2MF	200V	D511	8-719-911-55	DIODE U05G	
C812	1-124-634-11	ELECT 1MF	250V	D512	8-719-911-55	DIODE U05G	
C813	1-102-212-00	CERAMIC 820PF	500V	D513	8-719-109-81	DIODE RD4.7ES-B2	
C814	1-161-754-00	CERAMIC 0.001MF	2KV	D591	8-719-911-19	DIODE 1SS119	
C815	1-136-111-00	FILM 1MF	200V	D592	8-719-911-19	DIODE 1SS119	
C817	1-136-565-11	FILM 0.015MF	1.4KV	D593	8-719-911-19	DIODE 1SS119	
C818	1-136-759-11	FILM 0.039MF	630V	D601	8-719-946-90	DIODE KBU4JL-6088	
C819 Δ	1-161-731-11	CERAMIC 0.001MF	2KV	D602	8-719-925-06	DIODE ERC25-06S	
C820	1-106-218-00	MYLAR 0.0082MF	400V	D603	8-719-911-55	DIODE U05G	
C821 Δ	1-162-116-51	CERAMIC 680PF	2KV	D604	8-719-911-55	DIODE U05G	
C822	1-102-114-00	CERAMIC 470PF	50V	D605	8-719-911-55	DIODE U05G	
C823	1-106-359-00	MYLAR 0.0047MF	400V	D606	8-719-925-06	DIODE ERC25-06S	
C824	1-102-212-00	CERAMIC 820PF	500V	D607	8-719-925-06	DIODE ERC25-06S	
C825	1-106-375-12	MYLAR 0.022MF	250V	D608	8-719-925-06	DIODE ERC25-06S	
C826	1-123-875-11	ELECT 10MF	50V	D610	8-719-300-59	DIODE CTU-12S	
<FILTER>				D611	8-719-928-08	DIODE ERD28-06S	
CF001	1-567-686-11	OSCILLATOR, CERAMIC		D612	8-719-300-59	DIODE CTU-12S	
CF501	1-567-888-11	OSCILLATOR, CERAMIC		D613	8-719-925-06	DIODE ERC25-06S	
<CONNECTOR>				D614	8-719-925-06	DIODE ERC25-06S	
CN801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D615	8-719-109-90	DIODE RD5.6ES-B3	
CND01	*1-564-884-11	PLUG, CONNECTOR 7P		D616	8-719-109-93	DIODE RD6.2ES-B2	
CND02	*1-564-886-11	PLUG, CONNECTOR 9P		D618	8-719-109-89	DIODE RD5.6ES-B2	
CND11	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P		D620	8-719-000-12	DIODE MC931	
CND12	*1-564-884-11	PLUG, CONNECTOR 7P		D622	8-719-911-19	DIODE 1SS119	
CND18	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		D623	8-719-911-19	DIODE 1SS119	
CND19	*1-564-881-11	PLUG, CONNECTOR 4P		D624	8-719-911-19	DIODE 1SS119	
CND21	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P		D627	8-719-911-19	DIODE 1SS119	
CND23	*1-560-124-00	PLUG, CONNECTOR (2.5MM PITCH)		D630	8-719-110-39	DIODE RD15ES-B1	
CND31	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P		D632	8-719-110-16	DIODE RD10ES-B1	
CND41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)		D633	8-719-911-19	DIODE 1SS119	
CND45	*1-564-882-11	PLUG, CONNECTOR 5P		D801	8-719-925-06	DIODE ERC25-06S	
CND51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)		D802	8-719-925-06	DIODE ERC25-06S	
CND64	*1-506-348-XX	PIN, CONNECTOR 3P		D803	8-719-300-65	DIODE ES1F	
CND68	*1-564-879-11	PLUG, CONNECTOR 2P		D804	8-719-911-55	DIODE U05G	
CND82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D805	8-719-911-55	DIODE U05G	
CND83	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D806	8-719-945-80	DIODE ERC06-15S	
CND84	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P		D807	8-719-945-80	DIODE ERC06-15S	
CND91	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		D808	8-719-928-08	DIODE ERD28-08S	
CND92	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P		D809	8-719-925-06	DIODE ERC25-06S	
CND94	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)		<IC>			
<DIODE>				IC001	8-759-630-06	IC M50436-614SP	
D001	8-719-911-19	DIODE 1SS119		IC002	8-759-979-57	IC MB88503H-1022G	
D002	8-719-911-19	DIODE 1SS119		IC003	8-759-603-41	IC M58655P	
D003	8-719-911-19	DIODE 1SS119		IC004	8-759-157-40	IC UPC574J	
D004	8-719-911-19	DIODE 1SS119		IC251	8-759-803-31	IC LA4280	
D005	8-719-109-71	DIODE RD3.9ES-B1		*4-368-683-01	SPRING; IC251		
D007	8-719-109-89	DIODE RD5.6ES-B2		IC401	8-752-006-12	IC CX20061	
D008	8-719-110-85	DIODE RD36ES-B4		IC501	8-759-970-73	IC TEA2028B	
D009	8-719-109-89	DIODE RD5.6ES-B2		IC502	8-759-944-57	IC TDA8170	
D011	8-719-911-19	DIODE 1SS119		*4-381-724-01	HOLDER, IC; IC502		
D012	8-719-911-19	DIODE 1SS119		IC601	8-759-946-23	IC TEA2164	
D013	8-719-911-19	DIODE 1SS119		IC608	8-759-700-06	IC UPC7812H	
D254	8-719-110-14	DIODE RD9.1ES-B3		<COIL>			
D501	8-719-911-19	DIODE 1SS119		L001	1-408-414-00	INDUCTOR 27UH	
D504	8-719-911-55	DIODE U05G		L501	1-408-225-00	INDUCTOR 3.3UH	
D506	8-719-000-12	DIODE MC931		L601	*1-420-872-00	COIL, AIR CORE	
				L602	1-410-396-41	FERRITE BEAD INDUCTOR	

D


The components identified by shading and mark Δ are critical for safety.
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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
L603	1-410-396-41	FERRITE BEAD INDUCTOR		R017	1-249-417-11	CARBON	1K 5% 1/4W
L605	1-459-442-00	COIL (WITH CORE)		R018	1-249-417-11	CARBON	1K 5% 1/4W
L606	1-421-013-00	COIL, (HORIZONTAL CHOKE)	25UH	R019	1-249-433-11	CARBON	22K 5% 1/4W
L607	1-408-421-00	INDUCTOR 100UH		R020	1-249-433-11	CARBON	22K 5% 1/4W
L803	1-459-104-00	COIL, DUST CORE		R021	1-249-433-11	CARBON	22K 5% 1/4W
L804	1-408-239-00	INDUCTOR 4.7MMH		R022	1-249-433-11	CARBON	22K 5% 1/4W
L805	1-459-652-12	HLC		R023	1-249-429-11	CARBON	10K 5% 1/4W
L806	1-459-115-00	COIL, DCC-H		R024	1-249-429-11	CARBON	10K 5% 1/4W
L807	1-407-504-00	INDUCTOR 10MMH		R025	1-249-417-11	CARBON	1K 5% 1/4W
L809	*1-420-872-00	COIL, AIR CORE		R026	1-249-417-11	CARBON	1K 5% 1/4W
L810	1-459-390-00	COIL (WITH CORE)		R027	1-249-417-11	CARBON	1K 5% 1/4W
<IC LINK>				R028	1-249-417-11	CARBON	1K 5% 1/4W
PS601A	1-532-984-91	LINK, IC 2A		R029	1-249-417-11	CARBON	1K 5% 1/4W
PS602A	1-532-675-91	LINK, IC 1.5A		R030	1-249-425-11	CARBON	4.7K 5% 1/4W
<TRANSISTOR>				R031	1-249-429-11	CARBON	10K 5% 1/4W
Q001	8-729-600-24	TRANSISTOR 2SC403SP-51		R032	1-249-417-11	CARBON	1K 5% 1/4W
Q002	8-729-173-38	TRANSISTOR 2SA733-K		R033	1-249-413-11	CARBON	470 5% 1/4W
Q003	8-729-173-38	TRANSISTOR 2SA733-K		R034	1-249-413-11	CARBON	470 5% 1/4W
Q004	8-729-173-38	TRANSISTOR 2SA733-K		R035	1-249-431-11	CARBON	15K 5% 1/4W
Q252	8-729-900-36	TRANSISTOR DTC124ES		R036	1-249-421-11	CARBON	2.2K 5% 1/4W
Q501	8-729-173-38	TRANSISTOR 2SA733-K		R037	1-249-417-11	CARBON	1K 5% 1/4W
Q502	8-729-173-38	TRANSISTOR 2SA733-K		R038	1-249-417-11	CARBON	1K 5% 1/4W
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE		R039	1-249-417-11	CARBON	1K 5% 1/4W
Q505	8-729-114-96	TRANSISTOR 2SD774-34		R040	1-249-417-11	CARBON	1K 5% 1/4W
Q506	8-729-140-97	TRANSISTOR 2SB734-34		R041	1-249-417-11	CARBON	1K 5% 1/4W
Q507	8-729-173-38	TRANSISTOR 2SA733-K		R042	1-249-417-11	CARBON	1K 5% 1/4W
Q591	8-729-119-78	TRANSISTOR 2SC2785-HFE		R043	1-249-417-11	CARBON	1K 5% 1/4W
Q598	8-729-119-78	TRANSISTOR 2SC2785-HFE		R044	1-249-429-11	CARBON	10K 5% 1/4W
Q601	8-729-122-03	TRANSISTOR 2SA1220A-Q		R045	1-249-417-11	CARBON	1K 5% 1/4W
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB		R046	1-249-429-11	CARBON	10K 5% 1/4W
Q603	*4-368-683-01	SPRING; Q602		R047	1-249-409-11	CARBON	220 5% 1/4W
Q604	8-729-820-15	TRANSISTOR 2SB1185-E		R048	1-249-417-11	CARBON	1K 5% 1/4W
Q604	8-729-308-92	TRANSISTOR 2SD789-03C		R049	1-249-417-11	CARBON	1K 5% 1/4W
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE		R050	1-249-433-11	CARBON	22K 5% 1/4W
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE		R051	1-249-429-11	CARBON	10K 5% 1/4W
Q607	8-729-920-92	TRANSISTOR 2SD2096-EF		R052	1-249-439-11	CARBON	68K 5% 1/4W
Q608	*4-368-683-01	SPRING		R053	1-249-437-11	CARBON	47K 5% 1/4W
Q609	8-729-308-92	TRANSISTOR 2SD789-03C		R054	1-249-417-11	CARBON	1K 5% 1/4W
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE		R056	1-249-440-11	CARBON	82K 5% 1/4W
Q804	8-729-304-50	TRANSISTOR 2SD1941-06		R057	1-249-409-11	CARBON	220 5% 1/4W
Q805	*4-368-683-01	SPRING; Q804		R058	1-249-409-11	CARBON	220 5% 1/4W
	8-729-119-80	TRANSISTOR 2SC2688-LK		R059	1-249-435-11	CARBON	33K 5% 1/4W
<RESISTOR>				R060	1-249-436-11	CARBON	39K 5% 1/4W
R001	1-249-417-11	CARBON	1K 5% 1/4W	R061	1-249-417-11	CARBON	1K 5% 1/4W
R002	1-249-417-11	CARBON	1K 5% 1/4W	R062	1-249-411-11	CARBON	330 5% 1/4W
R003	1-249-417-11	CARBON	1K 5% 1/4W	R063	1-249-431-11	CARBON	15K 5% 1/4W
R004	1-249-417-11	CARBON	1K 5% 1/4W	R064	1-249-429-11	CARBON	10K 5% 1/4W
R005	1-249-407-11	CARBON	150 5% 1/4W	R067	1-249-413-11	CARBON	470 5% 1/4W
R006	1-249-417-11	CARBON	1K 5% 1/4W	R068	1-249-421-11	CARBON	2.2K 5% 1/4W
R007	1-249-405-11	CARBON	100 5% 1/4W	R069	1-249-423-11	CARBON	3.3K 5% 1/4W
R008	1-249-417-11	CARBON	1K 5% 1/4W	R070	1-249-417-11	CARBON	1K 5% 1/4W
R009	1-249-417-11	CARBON	1K 5% 1/4W	R071	1-249-417-11	CARBON	1K 5% 1/4W
R010	1-249-413-11	CARBON	470 5% 1/4W	R072	1-249-417-11	CARBON	1K 5% 1/4W
R011	1-249-417-11	CARBON	1K 5% 1/4W	R073	1-249-417-11	CARBON	1K 5% 1/4W
R012	1-249-417-11	CARBON	1K 5% 1/4W	R074	1-249-417-11	CARBON	1K 5% 1/4W
R013	1-249-417-11	CARBON	1K 5% 1/4W	R075	1-249-417-11	CARBON	1K 5% 1/4W
R014	1-249-417-11	CARBON	1K 5% 1/4W	R077	1-249-413-11	CARBON	470 5% 1/4W
R016	1-249-429-11	CARBON	10K 5% 1/4W	R078	1-249-423-11	CARBON	3.3K 5% 1/4W
				R079	1-249-435-11	CARBON	33K 5% 1/4W
				R080	1-249-429-11	CARBON	10K 5% 1/4W
				R081	1-249-441-11	CARBON	100K 5% 1/4W
				R082	1-249-409-11	CARBON	220 5% 1/4W
				R083	1-249-429-11	CARBON	10K 5% 1/4W

REF.NO.	PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
R084	1-249-413-11	CARBON	470	5%	1/4W		R535	1-249-749-00	CARBON	4.2M	5%	1/4W	
R085	1-249-429-11	CARBON	10K	5%	1/4W		R536	1-249-749-00	CARBON	2.2M	5%	1/4W	
R086	1-249-417-11	CARBON	1K	5%	1/4W		R537	1-249-434-11	CARBON	27K	5%	1/4W	
R087	1-249-417-11	CARBON	1K	5%	1/4W		R538	1-247-883-00	CARBON	150K	5%	1/4W	
R088	1-249-425-11	CARBON	4.7K	5%	1/4W		R539	1-247-883-00	CARBON	150K	5%	1/4W	
R090	1-249-413-11	CARBON	470	5%	1/4W		R540	1-249-399-11	CARBON	33	5%	1/4W	
R091	1-249-409-11	CARBON	220	5%	1/4W		R541	1-249-438-11	CARBON	56K	5%	1/4W	
R093	1-249-429-11	CARBON	10K	5%	1/4W		R542	1-249-425-11	CARBON	4.7K	5%	1/4W	
R094	1-249-429-11	CARBON	10K	5%	1/4W		R543	1-249-451-11	CARBON	2.2	5%	1/4W	
R095	1-249-409-11	CARBON	220	5%	1/4W		R544	1-247-745-11	CARBON	330	5%	1/2W	
R096	1-249-409-11	CARBON	220	5%	1/4W		R545	1-249-433-11	CARBON	22K	5%	1/4W	
R097	1-249-429-11	CARBON	10K	5%	1/4W		R546	1-249-434-11	CARBON	27K	5%	1/4W	
R098	1-249-429-11	CARBON	10K	5%	1/4W		R547	1-249-423-11	CARBON	3.3K	5%	1/4W	
R099	1-215-900-11	METAL OXIDE	22K	5%	2W	F	R548	1-216-349-11	METAL OXIDE	1	5%	1W	F
R251	1-249-417-11	CARBON	1K	5%	1/4W		R549	1-216-454-11	METAL OXIDE	390	5%	2W	F
R252	1-249-413-11	CARBON	470	5%	1/4W		R550	1-249-440-11	CARBON	82K	5%	1/4W	
R253	1-249-413-11	CARBON	470	5%	1/4W		R551	1-249-749-00	CARBON	2.2M	5%	1/4W	
R255	1-249-385-11	CARBON	2.2	5%	1/4W	F	R553	1-216-869-11	METAL OXIDE	1K	5%	1W	
R256	1-249-385-11	CARBON	2.2	5%	1/4W	F	R554	1-249-411-11	CARBON	330	5%	1/4W	
R260	1-249-393-11	CARBON	10	5%	1/4W		R555	1-249-749-00	CARBON	2.2M	5%	1/4W	
R261	1-249-429-11	CARBON	10K	5%	1/4W		R556	1-249-405-11	CARBON	100	5%	1/4W	
R262	1-249-413-11	CARBON	470	5%	1/4W		R557	1-249-425-11	CARBON	4.7K	5%	1/4W	
R263	1-249-421-11	CARBON	2.2K	5%	1/4W		R558	1-247-895-00	CARBON	470K	5%	1/4W	
R264	1-249-421-11	CARBON	2.2K	5%	1/4W		R559	1-249-427-11	CARBON	6.8K	5%	1/4W	
R265	1-249-425-11	CARBON	4.7K	5%	1/4W		R560	1-249-411-11	CARBON	330	5%	1/4W	
R266	1-249-425-11	CARBON	4.7K	5%	1/4W		R591	1-249-427-11	CARBON	6.8K	5%	1/4W	
R401	1-249-434-11	CARBON	27K	5%	1/4W		R592	1-249-429-11	CARBON	10K	5%	1/4W	
R402	1-249-435-11	CARBON	33K	5%	1/4W		R593	1-249-429-11	CARBON	10K	5%	1/4W	
R410	1-249-413-11	CARBON	470	5%	1/4W		R594	1-249-424-11	CARBON	3.9K	5%	1/4W	
R411	1-249-413-11	CARBON	470	5%	1/4W		R595	1-249-417-11	CARBON	1K	5%	1/4W	
R412	1-249-413-11	CARBON	470	5%	1/4W		R596	1-249-425-11	CARBON	4.7K	5%	1/4W	
R500	1-247-897-11	CARBON	560K	5%	1/4W		R597	1-249-425-11	CARBON	4.7K	5%	1/4W	
R501	1-249-413-11	CARBON	470	5%	1/4W		R598	1-249-405-11	CARBON	100	5%	1/4W	
R502	1-249-409-11	CARBON	220	5%	1/4W		R599	1-249-405-11	CARBON	100	5%	1/4W	
R503	1-249-410-11	CARBON	270	5%	1/4W		R602	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R504	1-215-427-00	METAL	1.8K	1%	1/6W		R603	1-216-359-00	METAL OXIDE	6.8	5%	1W	F
R505	1-249-431-11	CARBON	15K	5%	1/4W		R604	1-249-414-11	CARBON	560	5%	1/4W	
R506	1-249-428-11	CARBON	8.2K	5%	1/4W		R605	1-215-469-00	METAL	100K	1%	1/6W	
R507	1-247-891-00	CARBON	330K	5%	1/4W		R606	1-249-426-11	CARBON	5.6K	5%	1/4W	
R509	1-249-424-11	CARBON	3.9K	5%	1/4W		R607	1-249-434-11	CARBON	27K	5%	1/4W	
R510	1-249-426-11	CARBON	5.6K	5%	1/4W		R608	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R511	1-249-429-11	CARBON	10K	5%	1/4W		R609	1-249-401-11	CARBON	47	5%	1/4W	
R512	1-247-891-00	CARBON	330K	5%	1/4W		R610	1-249-393-11	CARBON	10	5%	1/4W	F
R513	1-249-429-11	CARBON	10K	5%	1/4W		R611	1-249-385-11	CARBON	2.2	5%	1/4W	F
R514	1-249-409-11	CARBON	220	5%	1/4W		R612	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R515	1-249-423-11	CARBON	3.3K	5%	1/4W		R613	1-249-401-11	CARBON	47	5%	1/4W	
R516	1-249-408-11	CARBON	180	5%	1/4W		R614	1-205-919-11	WIREWOUND	220	10%	10W	F
R517	1-249-429-11	CARBON	10K	5%	1/4W		R616	1-249-417-11	CARBON	1K	5%	1/4W	
R518	1-249-437-11	CARBON	47K	5%	1/4W		R617	1-249-411-11	CARBON	330	5%	1/4W	
R519	1-249-433-11	CARBON	22K	5%	1/4W		R618	1-216-431-11	METAL OXIDE	560	5%	1W	
R520	1-249-411-11	CARBON	330	5%	1/4W		R619	1-249-429-11	CARBON	10K	5%	1/4W	
R521	1-249-405-11	CARBON	100	5%	1/4W		R620	1-249-433-11	CARBON	22K	5%	1/4W	
R522	1-215-469-00	METAL	100K	1%	1/6W		R621	1-249-431-11	CARBON	15K	5%	1/4W	
R523	1-249-417-11	CARBON	1K	5%	1/4W		R622	1-249-429-11	CARBON	10K	5%	1/4W	
R524	1-249-421-11	CARBON	2.2K	5%	1/4W		R623	1-249-385-11	CARBON	2.2	5%	1/4W	F
R525	1-249-417-11	CARBON	1K	5%	1/4W		R624	1-249-411-11	CARBON	330	5%	1/4W	
R526	1-249-409-11	CARBON	220	5%	1/4W	F	R625	1-215-865-11	METAL OXIDE	220	5%	1W	
R527	1-249-431-11	CARBON	15K	5%	1/4W		R626	1-249-411-11	CARBON	330	5%	1/4W	
R528	1-249-408-11	CARBON	180	5%	1/4W		R628	1-249-393-11	CARBON	10	5%	1/4W	
R529	1-249-427-11	CARBON	6.8K	5%	1/4W		R629	1-249-411-11	CARBON	330	5%	1/4W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F	R630	1-249-437-11	CARBON	47K	5%	1/4W	
R531	1-247-881-00	CARBON	120K	5%	1/4W		R633	1-249-405-11	CARBON	100	5%	1/4W	
R532	1-249-417-11	CARBON	1K	5%	1/4W		R634	1-216-430-11	METAL OXIDE	390	5%	1W	
R534	1-247-901-11	CARBON	820K	5%	1/4W								

D

V

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R635	1-249-429-11	CARBON	10K 5% 1/4W	TP91	*1-535-084-00	1P TERMINAL PIN	
R636	1-249-429-11	CARBON	10K 5% 1/4W	*****			
R642	1-216-343-00	METAL OXIDE	0.33 5% 1W	*A-1347-030-A	V BOARD, COMPLETE		
R643	1-217-192-21	WIREWOUND	0.22 10% 2W		*****		
R647	1-216-485-11	METAL OXIDE	5.6K 5% 3W	*4-380-698-01	CASE (MAIN), SHIELD, A1		
R648	1-216-485-11	METAL OXIDE	5.6K 5% 3W	*4-380-699-01	CASE (UPPER LID), SHIELD, A1		
R649	1-249-385-11	CARBON	2.2 5% 1/4W	*4-382-701-01	CASE (BOTTOM LID), SHIELD, A2		
R650	1-249-417-11	CARBON	1K 5% 1/4W				
R651	1-249-405-11	CARBON	100 5% 1/4W				
R652	1-247-903-00	CARBON	1M 5% 1/4W				
R802	1-249-443-11	CARBON	0.47 5% 1/4W				
R805	1-249-448-11	CARBON	1.2 5% 1/4W				
R806	1-249-439-11	CARBON	68K 5% 1/4W				
R807	1-216-869-11	METAL OXIDE	1K 5% 1W				
R809	1-202-821-11	SOLID	1.8K 10% 1/2W				
R810	1-202-818-00	SOLID	1K 10% 1/2W				
R811	1-215-882-00	METAL OXIDE	22 5% 2W				
R812	1-249-494-11	CARBON	68K 5% 1/2W				
R815	1-215-884-11	METAL OXIDE	47 5% 2W				
R816	1-215-868-00	METAL OXIDE	680 5% 1W				
R817	1-249-417-11	CARBON	1K 5% 1/4W				
R820	1-249-403-11	CARBON	68 5% 1/4W				
R821	1-247-725-11	CARBON	10K 5% 1/4W				
R822	1-217-778-11	FUSIBLE	1K 5% 1W				
R825	1-216-345-11	METAL OXIDE	0.47 5% 1W				
R826	1-249-441-11	CARBON	100K 5% 1/4W				
R827	1-249-429-11	CARBON	10K 5% 1/4W				
R828	1-249-423-11	CARBON	3.3K 5% 1/4W				
R829	1-249-416-11	CARBON	820 5% 1/4W				
R830	1-249-429-11	CARBON	10K 5% 1/4W				
R831	1-249-451-11	CARBON	2.2 5% 1/4W				
R1001	1-249-421-11	CARBON	2.2K 5% 1/4W				
R1002	1-249-423-11	CARBON	3.3K 5% 1/4W				
R1003	1-249-413-11	CARBON	470 5% 1/4W				
R1005	1-249-408-11	CARBON	180 5% 1/4W				
R1006	1-249-408-11	CARBON	180 5% 1/4W				
R1007	1-249-408-11	CARBON	180 5% 1/4W				
R1008	1-249-409-11	CARBON	220 5% 1/4W				
R1009	1-249-417-11	CARBON	1K 5% 1/4W				
R1012	1-249-405-11	CARBON	100 5% 1/4W				
R5501	1-249-429-11	CARBON	10K 5% 1/4W				
R5502	1-249-417-11	CARBON	1K 5% 1/4W				
R5503	1-249-389-11	CARBON	4.7 5% 1/4W				
R5504	1-247-903-00	CARBON	1M 5% 1/4W				
R5505	1-249-393-11	CARBON	10 5% 1/4W				
<VARIABLE RESISTOR>				<CAPACITOR>			
RV501	1-228-991-00	RES, ADJ, CARBON 2.2K		C01	1-126-101-11	ELECT 100MF	20% 16V
RV502	1-228-994-00	RES, ADJ, CARBON 10K		C02	1-124-120-11	ELECT 220MF	20% 16V
RV601	1-228-991-00	RES, ADJ, CARBON 2.2K		C03	1-124-119-00	ELECT 330MF	20% 16V
<SPARK GAP>				C04	1-124-477-11	ELECT 47MF	20% 16V
SG801	1-519-063-XX	DISCHARGING GAP		C05	1-126-101-11	ELECT 100MF	20% 16V
<TRANSFORMER>				C06	1-124-120-11	ELECT 220MF	20% 16V
T601	1-448-961-31	S.R.T		C07	1-124-499-11	ELECT 1MF	20% 50V
T602	1-424-011-12	TRANSFORMER, PULSE		C08	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
T801	1-437-090-00	HDT		C09	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
T802	1-439-416-11	TRANSFORMER ASSY, FLYBACK		C10	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
<TERMINAL PIN>				C11	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
				C12	1-163-127-00	CERAMIC CHIP 270PF	5% 50V
				C13	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C14	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
				C15	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
				C16	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
				C17	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
				C18	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
				C19	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
				C20	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
				C21	1-163-833-00	CERAMIC CHIP 0.068MF	25V
				C24	1-126-101-11	ELECT 100MF	20% 16V
				C25	1-124-477-11	ELECT 47MF	20% 16V
				C27	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
				C28	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
				C29	1-124-927-11	ELECT 4.7MF	20% 50V
				C51	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C52	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C53	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C54	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C55	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C56	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C57	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
				C58	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
				C59	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
<CONNECTOR>				<TRIMMER>			
CNV03	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		CTO1	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)	
V1	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		<DIODE>			
V2	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P		D01	8-719-400-47	DIODE MA3056M	
V3	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P					
V4	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)					
V5	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)					

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D02	8-719-400-95	DIODE MA3130L		R38	1-216-047-00	METAL GLAZE 820 5%	1/10W
D03	8-719-400-18	DIODE MA152WK		R40	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
D04	8-719-105-52	DIODE RD3.6M-B2		R41	1-216-041-00	METAL GLAZE 470 5%	1/10W
D07	8-719-400-63	DIODE MA3068M		R43	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
D08	8-719-400-63	DIODE MA3068M		R44	1-216-041-00	METAL GLAZE 470 5%	1/10W
D09	8-719-400-18	DIODE MA152WK		R45	1-216-049-00	METAL GLAZE 1K 5%	1/10W
D10	8-719-400-18	DIODE MA152WK		R46	1-216-311-00	METAL GLAZE 6.8 5%	1/10W
D11	8-719-914-44	DIODE DAP202K		R51	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
D12	8-719-914-44	DIODE DAP202K		R52	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
<IC>				R53	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
IC1	8-759-972-41	IC MAB8461P-W136		R54	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
IC2	8-759-972-96	IC SAA5231-V6		R55	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
IC3	8-759-013-21	IC SDA5241		R56	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
IC4	8-759-230-68	IC TMM2063P-70		R57	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
<COIL>				R58	1-216-049-00	METAL GLAZE 1K 5%	1/10W
L01	1-408-411-00	INDUCTOR 15UH		R59	1-216-056-00	METAL GLAZE 2K 5%	1/10W
L02	1-408-407-00	INDUCTOR 6.8UH		R60	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
L03	1-408-407-00	INDUCTOR 6.8UH		R61	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
L04	1-408-407-00	INDUCTOR 6.8UH		R62	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
L05	1-408-407-00	INDUCTOR 6.8UH		R63	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
L06	1-408-407-00	INDUCTOR 6.8UH		R64	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
<TRANSISTOR>				R65	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q01	8-729-920-92	TRANSISTOR 2SD2096-EF		R66	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q02	8-729-807-50	TRANSISTOR 2SD1623-R		R67	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q03	8-729-900-53	TRANSISTOR DTC114EK		R68	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q04	8-729-271-22	TRANSISTOR 2SC2712-G		R69	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q05	8-729-807-50	TRANSISTOR 2SD1623-R		<VARIABLE RESISTOR>			
Q06	8-729-271-22	TRANSISTOR 2SC2712-G		RV01	1-238-009-11	RES, ADJ, CARBON 220	
Q07	8-729-900-98	TRANSISTOR DTC143TK		<CRYSTAL>			
Q09	8-729-800-68	TRANSISTOR 2SB815B6		X01	1-567-162-21	OSCILLATOR, CRYSTAL	
Q10	8-729-800-68	TRANSISTOR 2SB815B6		X02	1-567-495-21	OSCILLATOR, CRYSTAL	
Q11	8-729-800-68	TRANSISTOR 2SB815B6		X03	1-577-082-11	VIBRATOR, CERAMIC	
<RESISTOR>				*****			
R01	1-218-326-11	METAL GLAZE 470 1/2W		*A-1371-373-A J1 BOARD, COMPLETE			
R02	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		*****			
R04	1-218-326-11	METAL GLAZE 470 1/2W		<CAPACITOR>			
R05	1-216-025-00	METAL GLAZE 100 5% 1/10W		C1401	1-123-875-11	ELECT 10MF 20% 50V	
R06	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C1402	1-126-103-11	ELECT 470MF 20% 16V	
R07	1-216-025-00	METAL GLAZE 100 5% 1/10W		C1403	1-102-112-00	CERAMIC 330PF 10% 50V	
R08	1-216-037-00	METAL GLAZE 330 5% 1/10W		C1404	1-124-902-00	ELECT 0.47MF 20% 50V	
R09	1-216-091-00	METAL GLAZE 56K 5% 1/10W		C1405	1-101-003-00	CERAMIC 0.0047MF 50V	
R13	1-216-025-00	METAL GLAZE 100 5% 1/10W		C1406	1-124-902-00	ELECT 0.47MF 20% 50V	
R14	1-216-025-00	METAL GLAZE 100 5% 1/10W		C1407	1-124-477-11	ELECT 47MF 20% 16V	
R15	1-216-121-00	METAL GLAZE 1M 5% 1/10W		C1408	1-126-101-11	ELECT 100MF 20% 16V	
R16	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W		C1409	1-126-233-11	ELECT 22MF 20% 50V	
R17	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C1410	1-123-875-11	ELECT 10MF 20% 50V	
R18	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		C1411	1-123-875-11	ELECT 10MF 20% 50V	
R19	1-216-037-00	METAL GLAZE 330 5% 1/10W		C1412	1-124-477-11	ELECT 47MF 20% 16V	
R20	1-216-043-00	METAL GLAZE 560 5% 1/10W		C1413	1-124-477-11	ELECT 47MF 20% 16V	
R27	1-216-013-00	METAL GLAZE 33 5% 1/10W		C1414	1-123-875-11	ELECT 10MF 20% 50V	
R28	1-216-013-00	METAL GLAZE 33 5% 1/10W		C1415	1-124-902-00	ELECT 0.47MF 20% 50V	
R29	1-216-013-00	METAL GLAZE 33 5% 1/10W		C1416	1-124-902-00	ELECT 0.47MF 20% 50V	
R30	1-218-325-11	METAL GLAZE 120 1/4W		C1417	1-124-120-11	ELECT 220MF 20% 16V	
R31	1-218-325-11	METAL GLAZE 120 1/4W		C1418	1-102-112-00	CERAMIC 330PF 10% 50V	
R32	1-218-325-11	METAL GLAZE 120 1/4W		C1419	1-102-112-00	CERAMIC 330PF 10% 50V	
R33	1-216-023-00	METAL GLAZE 82 5% 1/10W		C1421	1-124-477-11	ELECT 47MF 20% 16V	
R34	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
R37	1-216-025-00	METAL GLAZE 100 5% 1/10W					

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<COIL>				R328	1-249-397-11	CARBON	22 5% 1/4W
L301	1-410-868-21	INDUCTOR	4.7UH	R329	1-249-397-11	CARBON	22 5% 1/4W
L302	1-410-868-21	INDUCTOR	4.7UH	R330	1-249-397-11	CARBON	22 5% 1/4W
L303	1-408-408-00	INDUCTOR	8.2UH	R331	1-249-418-11	CARBON	1.2K 5% 1/4W
L304	1-408-409-00	INDUCTOR	10UH	R332	1-249-401-11	CARBON	47 5% 1/4W
L331	1-408-408-00	INDUCTOR	8.2UH	R333	1-249-412-11	CARBON	390 5% 1/4W
L332	1-404-539-11	COIL		R334	1-249-408-11	CARBON	180 5% 1/4W
L333	1-404-554-11	COIL		R335	1-249-415-11	CARBON	680 5% 1/4W
L334	1-404-554-11	COIL		R336	1-249-418-11	CARBON	1.2K 5% 1/4W
L335	1-404-554-11	COIL		R337	1-247-848-11	CARBON	5.1K 5% 1/4W
L336	1-408-417-00	INDUCTOR	47UH	R338	1-249-429-11	CARBON	10K 5% 1/4W
L338	1-408-416-00	INDUCTOR	39UH	R339	1-249-409-11	CARBON	220 5% 1/4W
L339	1-410-868-21	INDUCTOR	4.7UH	R340	1-249-437-11	CARBON	47K 5% 1/4W
<TRANSISTOR>				R341	1-249-410-11	CARBON	270 5% 1/4W
Q302	8-729-119-78	TRANSISTOR	2SC2785-HFE	R342	1-249-429-11	CARBON	10K 5% 1/4W
Q303	8-729-119-78	TRANSISTOR	2SC2785-HFE	R343	1-249-429-11	CARBON	10K 5% 1/4W
Q305	8-729-900-36	TRANSISTOR	DTC124ES	R344	1-249-437-11	CARBON	47K 5% 1/4W
Q306	8-729-119-78	TRANSISTOR	2SC2785-HFE	R346	1-249-419-11	CARBON	1.5K 5% 1/4W
Q311	8-729-119-78	TRANSISTOR	2SC2785-HFE	R347	1-249-429-11	CARBON	10K 5% 1/4W
Q312	8-729-119-78	TRANSISTOR	2SC2785-HFE	R348	1-249-437-11	CARBON	47K 5% 1/4W
Q313	8-729-119-78	TRANSISTOR	2SC2785-HFE	R349	1-249-415-11	CARBON	680 5% 1/4W
Q316	8-729-119-78	TRANSISTOR	2SC2785-HFE	R350	1-249-415-11	CARBON	680 5% 1/4W
Q331	8-729-119-78	TRANSISTOR	2SC2785-HFE	R351	1-249-409-11	CARBON	220 5% 1/4W
Q332	8-729-900-36	TRANSISTOR	DTC124ES	R352	1-247-891-00	CARBON	330K 5% 1/4W
Q333	8-729-900-36	TRANSISTOR	DTC124ES	R353	1-247-891-00	CARBON	330K 5% 1/4W
Q334	8-729-119-78	TRANSISTOR	2SC2785-HFE	R354	1-249-409-11	CARBON	220 5% 1/4W
Q335	8-729-119-78	TRANSISTOR	2SC2785-HFE	R355	1-249-423-11	CARBON	3.3K 5% 1/4W
Q336	8-729-119-78	TRANSISTOR	2SC2785-HFE	R356	1-249-427-11	CARBON	6.8K 5% 1/4W
Q381	8-729-900-36	TRANSISTOR	DTC124ES	R358	1-249-409-11	CARBON	220 5% 1/4W
Q382	8-729-119-78	TRANSISTOR	2SC2785-HFE	R359	1-249-437-11	CARBON	47K 5% 1/4W
Q1306	8-729-173-38	TRANSISTOR	2SA733-K	R360	1-249-437-11	CARBON	47K 5% 1/4W
<RESISTOR>				R361	1-249-418-11	CARBON	1.2K 5% 1/4W
R301	1-249-409-11	CARBON	220 5% 1/4W	R363	1-249-410-11	CARBON	270 5% 1/4W
R302	1-249-409-11	CARBON	220 5% 1/4W	R364	1-249-417-11	CARBON	1K 5% 1/4W
R303	1-249-409-11	CARBON	220 5% 1/4W	R365	1-249-417-11	CARBON	1K 5% 1/4W
R304	1-249-409-11	CARBON	220 5% 1/4W	R367	1-249-409-11	CARBON	220 5% 1/4W
R305	1-249-421-11	CARBON	2.2K 5% 1/4W	R368	1-249-417-11	CARBON	1K 5% 1/4W
R307	1-249-441-11	CARBON	100K 5% 1/4W	R369	1-249-417-11	CARBON	1K 5% 1/4W
R308	1-249-414-11	CARBON	560 5% 1/4W	R370	1-249-418-11	CARBON	1.2K 5% 1/4W
R309	1-249-405-11	CARBON	100 5% 1/4W	R371	1-249-417-11	CARBON	1K 5% 1/4W
R310	1-249-405-11	CARBON	100 5% 1/4W	R376	1-249-429-11	CARBON	10K 5% 1/4W
R311	1-249-405-11	CARBON	100 5% 1/4W	R378	1-249-441-11	CARBON	100K 5% 1/4W
R312	1-249-409-11	CARBON	220 5% 1/4W	R379	1-249-441-11	CARBON	100K 5% 1/4W
R313	1-249-433-11	CARBON	22K 5% 1/4W	R380	1-249-426-11	CARBON	5.6K 5% 1/4W
R314	1-249-413-11	CARBON	470 5% 1/4W	R381	1-249-439-11	CARBON	68K 5% 1/4W
R315	1-249-407-11	CARBON	150 5% 1/4W	R382	1-247-885-00	CARBON	180K 5% 1/4W
R316	1-249-407-11	CARBON	150 5% 1/4W	R383	1-247-893-11	CARBON	390K 5% 1/4W
R317	1-249-407-11	CARBON	150 5% 1/4W	R385	1-249-435-11	CARBON	33K 5% 1/4W
R318	1-249-429-11	CARBON	10K 5% 1/4W	R389	1-247-883-00	CARBON	150K 5% 1/4W
R319	1-249-409-11	CARBON	220 5% 1/4W	R390	1-249-411-11	CARBON	330 5% 1/4W
R320	1-249-417-11	CARBON	1K 5% 1/4W	R391	1-249-404-00	CARBON	82 5% 1/4W
R321	1-249-421-11	CARBON	2.2K 5% 1/4W	R392	1-249-402-11	CARBON	56 5% 1/4W
R322	1-249-420-11	CARBON	1.8K 5% 1/4W	R393	1-249-402-11	CARBON	56 5% 1/4W
R323	1-249-421-11	CARBON	2.2K 5% 1/4W	R394	1-249-402-11	CARBON	56 5% 1/4W
R324	1-249-426-11	CARBON	5.6K 5% 1/4W	R398	1-249-433-11	CARBON	22K 5% 1/4W
R325	1-249-429-11	CARBON	10K 5% 1/4W	R1324	1-249-419-11	CARBON	1.5K 5% 1/4W
R326	1-249-419-11	CARBON	1.5K 5% 1/4W	<VARIABLE RESISTOR>			
R327	1-249-427-11	CARBON	6.8K 5% 1/4W	RV331	1-238-009-11	RES, ADJ, CARBON 220	

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

B

F₂

F₁

A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<TRANSFORMER>				<CRYSTAL>			
T331	1-404-584-11	COIL		<CAPACITOR>			
<CRYSTAL>				<CONNECTOR>			
X331	1-567-307-11	OSCILLATOR, CRYSTAL		CNF262	*1-566-664-11	PIN, CONNECTOR 4P	
X332	1-567-131-00	OSCILLATOR, CRYSTAL		<SWITCH>			
*****				S1701	*1-571-410-11	SWITCH, PUSH (AC POWER) (1 KEY)	
*****				<CAPACITOR>			
*****				C1601	*1-136-518-11	FILM 0.33MF 20% 300V	
*****				C1602	*1-136-519-11	FILM 0.47MF 20% 300V	
*****				C1603	*1-162-578-51	CERAMIC 0.0047MF 20% 400V	
*****				C1604	*1-162-578-51	CERAMIC 0.0047MF 20% 400V	
*****				C1605	*1-162-578-51	CERAMIC 0.0047MF 20% 400V	
*****				C1606	*1-162-578-51	CERAMIC 0.0047MF 20% 400V	
*****				C1607	*1-161-964-61	CERAMIC 0.0047MF 250V	
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<CAPACITOR>				CNF64	*1-506-348-XX	PIN, CONNECTOR 3P	
<CONNECTOR>				CNF65	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
<FUSE>				CNF66	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
<FILTER>				CNF67	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
<RESISTOR>				CNF162	*1-506-348-XX	PIN, CONNECTOR 4P	
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<CRYSTAL>				F1601	*1-532-350-11	FUSE, TIME-LAG 4A/250V	
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<SWITCH>				ALF1601	1-421-866-12	LFT	
<CAPACITOR>				ALF1602	1-421-776-11	LFT	
<CONNECTOR>				ALF1603	1-421-592-11	TRANSFORMER, FERRITE	
<FUSE>				<RESISTOR>			
<FILTER>				R1601	*1-246-513-75	CARBON 47K 5% 1/4W	
<RESISTOR>				R1602	*1-244-945-91	CARBON 1M 5% 1/2W	
<THERMISTOR>				R1603	*1-217-328-11	WIREWOUND 2.7 10% 7W	F
<CRYSTAL>				R1604	*1-246-513-75	CARBON 47K 5% 1/4W	
<CAPACITOR>				R1605	*1-218-265-91	METAL GLAZE 8.2M 5% 1W	
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A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C155	1-124-963-11	ELECT	33MF 20% 16V	Q101	8-729-900-61	TRANSISTOR DTA114ES	
C156	1-136-157-00	FILM	0.022MF 5% 50V	Q102	8-729-900-61	TRANSISTOR DTA114ES	
C157	1-136-161-00	FILM	0.047MF 5% 50V	Q103	8-729-900-61	TRANSISTOR DTA114ES	
C158	1-124-963-11	ELECT	33MF 20% 16V	Q104	8-729-900-61	TRANSISTOR DTA114ES	
C159	1-124-477-11	ELECT	47MF 20% 16V	Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C161	1-124-477-11	ELECT	47MF 20% 16V	Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C162	1-102-816-00	CERAMIC	120PF 5% 50V	Q107	8-729-173-38	TRANSISTOR 2SA733-K	
C163	1-124-927-11	ELECT	4.7MF 20% 50V	Q108	8-729-900-65	TRANSISTOR DTA144ES	
C164	1-106-367-00	MYLAR	0.01MF 10% 400V	Q109	8-729-900-89	TRANSISTOR DTC144ES	
C165	1-136-287-11	FILM	0.0047MF 5% 50V	Q110	8-729-173-38	TRANSISTOR 2SA733-K	
C167	1-124-499-11	ELECT	1MF 20% 50V	Q111	8-729-900-89	TRANSISTOR DTC144ES	
C168	1-106-228-00	MYLAR	0.22MF 10% 100V	Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C169	1-123-875-11	ELECT	10MF 20% 50V	Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C174	1-124-499-11	ELECT	1MF 20% 50V	Q116	8-729-900-65	TRANSISTOR DTA144ES	
C177	1-102-119-00	CERAMIC	0.0015MF 10% 50V	Q117	8-729-173-38	TRANSISTOR 2SA733-K	
C187	1-101-003-00	CERAMIC	0.0047MF 50V				
C188	1-124-963-11	ELECT	33MF 20% 16V				
C189	1-124-963-11	ELECT	33MF 20% 16V				
C190	1-106-220-00	MYLAR	0.1MF 10% 100V				
<FILTER>							
CD102	1-404-745-11	DISCRIMINATOR, CERAMIC		R101	1-249-405-11	CARBON	100 5% 1/4W
CD103	1-404-746-11	DISCRIMINATOR, CERAMIC		R102	1-249-423-11	CARBON	3.3K 5% 1/4W
CF101	1-404-134-00	TRAP, CERAMIC (5.5MHZ)		R103	1-249-433-11	CARBON	22K 5% 1/4W
CF103	1-527-840-00	FILTER, CERAMIC		R104	1-249-429-11	CARBON	10K 5% 1/4W
CF104	1-527-839-00	FILTER, CERAMIC		R105	1-249-418-11	CARBON	1.2K 5% 1/4W
SWF101	1-577-254-11	SAWF		R106	1-247-891-00	CARBON	330K 5% 1/4W
<CONNECTOR>				R107	1-249-421-11	CARBON	2.2K 5% 1/4W
CNA11	*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P		R108	1-249-421-11	CARBON	2.2K 5% 1/4W
<DIODE>				R109	1-249-423-11	CARBON	3.3K 5% 1/4W
D105	8-719-109-92	DIODE RD6.2ES-B1		R110	1-249-410-11	CARBON	270 5% 1/4W
D106	8-719-911-19	DIODE 1SS119		R111	1-249-418-11	CARBON	1.2K 5% 1/4W
D108	8-719-000-06	DIODE MC921		R112	1-249-421-11	CARBON	2.2K 5% 1/4W
D110	8-719-911-19	DIODE 1SS119		R114	1-249-413-11	CARBON	470 5% 1/4W
D111	8-719-109-68	DIODE RD3.6ES-B1		R115	1-249-413-11	CARBON	470 5% 1/4W
<IC>				R116	1-249-419-11	CARBON	1.5K 5% 1/4W
IC101	8-759-909-08	IC TDA3541		R117	1-249-431-11	CARBON	15K 5% 1/4W
IC102	8-759-973-86	IC TDA2558		R118	1-249-425-11	CARBON	4.7K 5% 1/4W
IC103	8-759-030-48	IC TDA6600-2		R119	1-249-417-11	CARBON	1K 5% 1/4W
IC104	8-759-946-99	IC TDA2595-V7		R121	1-249-429-11	CARBON	10K 5% 1/4W
<COIL>				R122	1-249-436-11	CARBON	39K 5% 1/4W
L101	1-408-226-00	INDUCTOR	82UH	R123	1-249-417-11	CARBON	1K 5% 1/4W
L102	1-410-116-11	INDUCTOR	0.56MMH	R124	1-249-423-11	CARBON	3.3K 5% 1/4W
L103	1-408-406-00	INDUCTOR	5.6UH	R125	1-249-429-11	CARBON	10K 5% 1/4W
L104	1-408-411-00	INDUCTOR	15UH	R126	1-249-436-11	CARBON	39K 5% 1/4W
L106	1-408-415-00	INDUCTOR	33UH	R127	1-249-432-11	CARBON	18K 5% 1/4W
L107	1-408-406-00	INDUCTOR	5.6UH	R128	1-249-432-11	CARBON	18K 5% 1/4W
L108	1-408-412-00	INDUCTOR	18UH	R129	1-249-429-11	CARBON	10K 5% 1/4W
L109	1-408-412-00	INDUCTOR	18UH	R130	1-249-429-11	CARBON	10K 5% 1/4W
L110	1-410-064-11	INDUCTOR	2.7MMH	R132	1-249-414-11	CARBON	560 5% 1/4W
L111	1-408-421-00	INDUCTOR	100UH	R133	1-249-425-11	CARBON	4.7K 5% 1/4W
L113	1-408-399-00	INDUCTOR	1.5UH	R134	1-249-414-11	CARBON	560 5% 1/4W
<TRANSISTOR>				R135	1-249-419-11	CARBON	1.5K 5% 1/4W
				R136	1-249-414-11	CARBON	560 5% 1/4W
				R137	1-249-414-11	CARBON	560 5% 1/4W
				R138	1-249-419-11	CARBON	1.5K 5% 1/4W
				R139	1-249-431-11	CARBON	15K 5% 1/4W
				R140	1-249-441-11	CARBON	100K 5% 1/4W
				R141	1-249-425-11	CARBON	4.7K 5% 1/4W
				R142	1-249-441-11	CARBON	100K 5% 1/4W
				R143	1-249-441-11	CARBON	100K 5% 1/4W
				R144	1-249-422-11	CARBON	2.7K 5% 1/4W
				R146	1-249-424-11	CARBON	3.9K 5% 1/4W
				R148	1-249-413-11	CARBON	470 5% 1/4W
				R150	1-249-423-11	CARBON	3.3K 5% 1/4W
				R151	1-249-423-11	CARBON	3.3K 5% 1/4W
				R152	1-249-431-11	CARBON	15K 5% 1/4W

J1

J2

H3

H4

Ks

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1504	1-249-435-11	CARBON 33K 5% 1/4W	
R1505	1-249-433-11	CARBON 22K 5% 1/4W	
R1506	1-247-895-00	CARBON 470K 5% 1/4W	
R1509	1-247-887-00	CARBON 220K 5% 1/4W	
R1510	1-249-426-11	CARBON 5.6K 5% 1/4W	
R1511	1-249-417-11	CARBON 1K 5% 1/4W	
R1512	1-249-429-11	CARBON 10K 5% 1/4W	
R1513	1-249-438-11	CARBON 56K 5% 1/4W	
R1514	1-249-417-11	CARBON 1K 5% 1/4W	
R1515	1-247-899-11	CARBON 680K 5% 1/4W	
R1516	1-249-432-11	CARBON 18K 5% 1/4W	
R1517	1-249-410-11	CARBON 270 5% 1/4W	
R1518	1-249-429-11	CARBON 10K 5% 1/4W	
R1519	1-247-883-00	CARBON 150K 5% 1/4W	
R1520	1-247-895-00	CARBON 470K 5% 1/4W	
R1521	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1556	1-249-426-11	CARBON 5.6K 5% 1/4W	

<VARIABLE RESISTOR>

RV1501	1-238-023-11	RES, ADJ, CARBON 470K
RV1502	1-228-994-00	RES, ADJ, CARBON 10K
RV1503	1-238-017-11	RES, ADJ, CARBON 22K
RV1504	1-238-012-11	RES, ADJ, CARBON 1K
RV1505	1-238-023-11	RES, ADJ, CARBON 470K
RV1506	1-238-017-11	RES, ADJ, CARBON 22K
RV1507	1-238-009-11	RES, ADJ, CARBON 220
RV1508	1-238-016-11	RES, ADJ, CARBON 10K
RV1509	1-228-999-00	RES, ADJ, CARBON 470K

*1-629-783-21 J2 BOARD

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C1401	1-126-105-11	ELECT 1000MF 20% 35V
C1402	1-126-105-11	ELECT 1000MF 20% 35V

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CNJ23	*1-564-893-11	PLUG, CONNECTOR 4P
CNJ242	*1-564-893-11	PLUG, CONNECTOR 4P

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J1401	1-507-806-00	JACK
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R1401	1-247-708-11	CARBON 470 5% 1/4W
R1402	1-247-708-11	CARBON 470 5% 1/4W

*1-629-785-21 H3 BOARD

<CONNECTOR>

CNH302	*1-564-898-11	PLUG, CONNECTOR 9P
CNH303	*1-564-892-41	PLUG, CONNECTOR 3P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1405	8-719-812-41 *4-348-208-00	DIODE TLR124 HOLDER, LED; D1405	
<SWITCH>			
S1401	1-571-085-21	SWITCH, TACTICLE	
S1402	1-571-085-21	SWITCH, TACTICLE	
S1403	1-571-085-21	SWITCH, TACTICLE	
S1404	1-571-085-21	SWITCH, TACTICLE	
S1405	1-571-085-21	SWITCH, TACTICLE	
S1406	1-571-085-21	SWITCH, TACTICLE	
S1407	1-571-085-21	SWITCH, TACTICLE	
S1408	1-571-085-21	SWITCH, TACTICLE	
S1409	1-571-085-21	SWITCH, TACTICLE	
S1410	1-571-085-21	SWITCH, TACTICLE	
S1411	1-571-085-21	SWITCH, TACTICLE	
S1412	1-571-085-21	SWITCH, TACTICLE	
S1414	1-571-085-21	SWITCH, TACTICLE	

*1-629-786-21 H4 BOARD

*4-374-987-01 GUIDE, LIGHT
*4-388-955-01 BRACKET (B), LIGHT GUIDE

<CONNECTOR>

CNH401	*1-564-884-11	PLUG, CONNECTOR 7P
CNH403	*1-564-880-31	PLUG, CONNECTOR 3P

<DIODE>

D1401	8-719-948-31	DIODE LD-201VR
	*4-387-825-01	HOLDER, LED; D1401
D1402	8-719-948-31	DIODE LD-201VR
	*4-387-825-01	HOLDER, LED; D1402
D1403	8-719-948-31	DIODE LD-201VR
	*4-387-825-01	HOLDER, LED; D1403
D1404	8-719-948-31	DIODE LD-201VR

<IC>

IC1401	8-741-138-70	IC BX-1387
IC1401	8-749-901-33	IC SBX1483-11

*1-629-781-21 KS BOARD

<CAPACITOR>

C202	1-124-902-00	ELECT 0.47MF 20% 50V
C203	1-124-477-11	ELECT 47MF 20% 16V
C204	1-124-902-00	ELECT 0.47MF 20% 50V
C205	1-124-927-11	ELECT 4.7MF 20% 50V
C206	1-124-477-11	ELECT 47MF 20% 16V
C207	1-124-927-11	ELECT 4.7MF 20% 50V
C213	1-126-233-11	ELECT 22MF 20% 50V
C214	1-106-363-00	MYLAR 0.0068MF 10% 400V
C217	1-106-363-00	MYLAR 0.0068MF 10% 400V
C218	1-106-375-12	MYLAR 0.022MF 10% 250V
C219	1-106-375-12	MYLAR 0.022MF 10% 250V

Ks

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C220	1-108-620-11	MYLAR	0.0033MF 10%	100V	R221	1-249-417-11	CARBON 1K 5% 1/4W
C221	1-108-620-11	MYLAR	0.0033MF 10%	100V	R222	1-249-417-11	CARBON 1K 5% 1/4W
C222	1-106-375-12	MYLAR	0.022MF 10%	250V	R223	1-249-413-11	CARBON 470 5% 1/4W
C223	1-106-375-12	MYLAR	0.022MF 10%	250V	R224	1-249-413-11	CARBON 470 5% 1/4W
C224	1-106-367-00	MYLAR	0.01MF 10%	400V	R225	1-249-417-11	CARBON 1K 5% 1/4W
C225	1-136-173-00	FILM	0.47MF 5%	50V	R226	1-249-417-11	CARBON 1K 5% 1/4W
C226	1-136-173-00	FILM	0.47MF 5%	50V	R227	1-249-417-11	CARBON 1K 5% 1/4W
C227	1-106-375-12	MYLAR	0.022MF 10%	250V	R228	1-249-417-11	CARBON 1K 5% 1/4W
C228	1-106-379-12	MYLAR	0.033MF 10%	250V	R229	1-249-441-11	CARBON 100K 5% 1/4W
C229	1-106-371-00	MYLAR	0.015MF 10%	400V	R230	1-249-441-11	CARBON 100K 5% 1/4W
C230	1-106-371-00	MYLAR	0.015MF 10%	400V	R231	1-249-437-11	CARBON 47K 5% 1/4W
C231	1-124-902-00	ELECT	0.47MF 20%	50V	R232	1-249-437-11	CARBON 47K 5% 1/4W
C232	1-123-875-11	ELECT	10MF 20%	50V	*****		
C233	1-102-114-00	CERAMIC	470PF 10%	50V	MISCELLANEOUS		
C234	1-102-114-00	CERAMIC	470PF 10%	50V	*****		
C235	1-102-114-00	CERAMIC	470PF 10%	50V	Δ 1-451-311-31	DEFLECTION YOKE (Y25FXA)	
C236	1-102-114-00	CERAMIC	470PF 10%	50V	1-452-032-00	MAGNET, DISK; 10MM ϕ	
C237	1-124-902-00	ELECT	0.47MF 20%	50V	1-452-094-00	MAGNET, RPTABLE DISK; 15MM ϕ	
C238	1-102-978-00	CERAMIC	220PF 5%	50V	1-452-277-00	MAGNET, BMC	
C239	1-126-103-11	ELECT	470MF 20%	16V	1-503-642-41	SPEAKER	
<CONNECTOR>				1-574-565-11	CORD (WITH PLUG)		
CNK21	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P		Δ 1-559-346-12	CORD, POWER (WITH CONNECTOR)		
CNK25	*1-564-880-31	PLUG, CONNECTOR 3P		L901 Δ 1-426-372-11	COIL, DEMAGNETIZATION		
<DIODE>				V901 Δ 8-733-224-05	PICTURE TUBE (A59JWC60X)		
D201	8-719-110-14	DIODE RD9.1ES-B3		*****			
D202	8-719-110-14	DIODE RD9.1ES-B3		ACCESSORIES AND PACKING MATERIALS			
D205	8-719-110-04	DIODE RD7.5ES-B3		*****			
D206	8-719-110-04	DIODE RD7.5ES-B3		PART NO.	DESCRIPTION	REMARK	
<IC>				A-1470-844-A	COMMANDER ASSY (RM-673)		
IC201	8-759-013-17	IC TDA6200		3-750-032-51	MANUAL, INSTRUCTION		
<TRANSISTOR>				*4-381-155-01	BAG, PROTECTION		
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE		*4-387-845-02	CUSHION (UPPER) (ASSY)		
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE		*4-387-846-02	CUSHION (LOWER) (ASSY)		
<RESISTOR>				*4-387-847-01	INDIVIDUAL CARTON		
<RESISTOR>				*****			
R201	1-249-441-11	CARBON	100K 5%	1/4W			
R202	1-249-425-11	CARBON	4.7K 5%	1/4W			
R203	1-249-441-11	CARBON	100K 5%	1/4W			
R204	1-249-435-11	CARBON	33K 5%	1/4W			
R205	1-249-435-11	CARBON	33K 5%	1/4W			
R206	1-249-423-11	CARBON	3.3K 5%	1/4W			
R207	1-249-423-11	CARBON	3.3K 5%	1/4W			
R208	1-249-431-11	CARBON	15K 5%	1/4W			
R209	1-249-433-11	CARBON	22K 5%	1/4W			
R210	1-249-431-11	CARBON	15K 5%	1/4W			
R211	1-249-441-11	CARBON	100K 5%	1/4W			
R212	1-249-433-11	CARBON	22K 5%	1/4W			
R213	1-249-431-11	CARBON	15K 5%	1/4W			
R214	1-249-417-11	CARBON	1K 5%	1/4W			
R215	1-249-433-11	CARBON	22K 5%	1/4W			
R216	1-249-433-11	CARBON	22K 5%	1/4W			
R217	1-249-431-11	CARBON	15K 5%	1/4W			
R218	1-249-417-11	CARBON	1K 5%	1/4W			
R219	1-249-429-11	CARBON	10K 5%	1/4W			
R220	1-249-425-11	CARBON	4.7K 5%	1/4W			